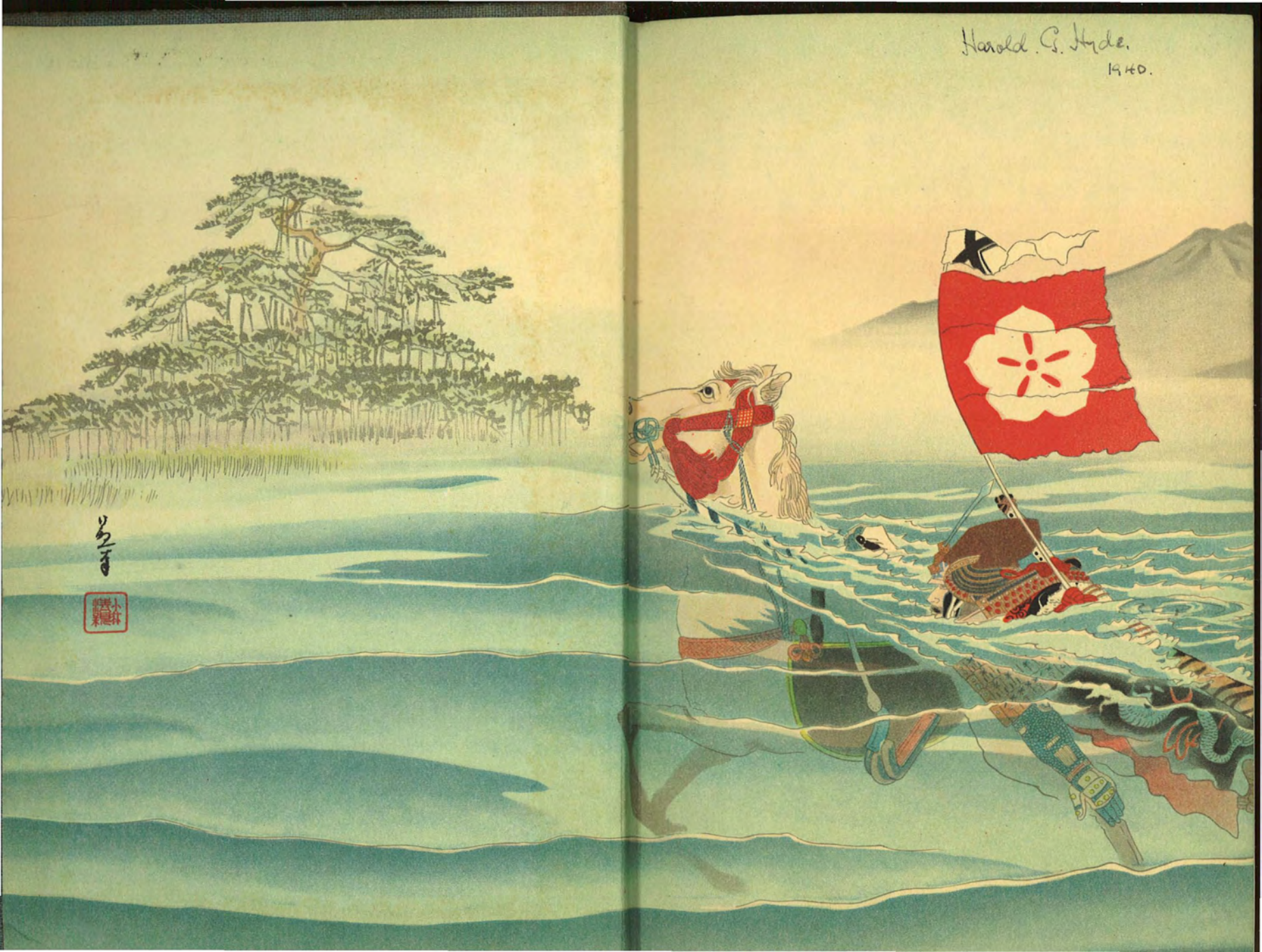
SWIMMING IN JAPAN

Harold. S. Hyde.
1940.



SWIMMING IN JAPAN

International Young Women and
Children's Society

TOKYO, JAPAN
1935

Printed in Japan

With Reference to the Publication of "Swimming in Japan"

The International Young Women and Children's Society has as one of our objects, the interchange of cultures of Japan and those of other countries.

Recently Japanese swimming technique has developed extraordinarily that one could almost say that it surprised the world. Our Society, feeling that one of our errands was to introduce this Japanese swimming in all its phase to the public in general, has undertaken the work since the summer of last year. It is now completed and our great pleasure in publishing it.

But this being our first attempt, it is imperfect and dissatisfying for which we regret very much. Full justice cannot be done to these articles as they were translated into English from the Japanese.

With regards to this publication, our Society deeply appreciates the full support of this work by Mr. Ikkaku Matsuzawa, honorary coach of the Japanese Swimming Team, Tenth Olympic Games and honorary secretary of the Amateur Swimming Federation of Japan and the rest of its members who have gratuitously contributed their articles in spite of their pressing time. Special thanks are due to Mr. Shigeo Sagita and Mr. Ken Uyeno for their untiring efforts in gathering together these materials and for their valuable advices.

The Society also wishes to acknowledge thanks to Baron Masao Matsunaga and the Nippon Yuei Remmei for their materials and illustrations of the Japanese Classic Swimming.

International Young Women and Children's Society

Tetsutaro Hasegawa, Director

Tokyo, December, 1935

CONTENTS

List of Illustrations

SWIMMING IN JAPAN

History of Swimming

By Shigeo Sagita

The development of swimming in Japan dates from ancient times. When Izanagi-no-Mikoto[1] came down to the province of Hyūga about 700 years before the accession of Emperor Jimmu[2] to the throne, it is said that he bathed in water. From the time of the Gods through the Ancient Times there have been many myths concerning swimming. Later swimming became a kind of military art and was used in time of battle, in river and sea. Swimming was as natural to the Japanese as walking, because Japan is surrounded by sea, and in all quarters, there are many rivers, streams, lakes, and swamps.

In the Tokugawa period (1603-1867 A.D.) the ways of swimming in the river and in the sea became varied.

1) *Izanagi-no-Mikoto*, is the Primal Ancestor of Japan according to prehistoric mythology. He with *Izanami-no-Mikoto*, the Primal Ancestress, created the eight islands of Japan and sent their descendents to rule over them for time eternal.

2) *Emperor Jimmu* is the First Emperor of Japan. The Japanese calendar starts with his Ascension to the Throne, making it 660 years longer than the Christian Era.

The differences of depths and currents of rivers gave rise to distinct styles of swimming. The writer will cite several instances.

Mukai Ryu[1]**:**

This is the school of swimming which Mukai-Shōgen, O-funaté-Bugyō (the governor of shipping) of the Tokugawa Government, taught and it was used when swimming during combat with enemies.

Shinden Ryu:

When Izanagi-no-Mikoto took a bath, he said that the current was stronger in the upper stream of the river and weaker in the lower reaches so he bathed on the water, in the water and at the bottom of the middle region. He developed many ways of swimming in that area which have undergone many changes. At any rate this style was used to swim for a long duration following the current and not against it.

Kwankai Ryu:

This is for swimming in the open sea. It is like the breast stroke and is used for long distance swimming.

Kobori Ryu:

This was invented by Mr. Kobori, and was used in the quick stream at the province of Higo. It was called "Tōsuijutsu" (the art of crossing the water) which used a circular movement of the legs (maki-

1) *Ryu* means school.

ashi). In this style the upper part of the body is above water even when the swimmer is wearing an armour and a helmet. It is also used in firing weapons. It is still used in the present day.

Suifu Ryu:

This was developed in the quick stream at Mito. It is used for going up river. Once it was very advanced and as popular as the crawl stroke is at present.

Besides these, there arose the "Kōbu Ryū" which looked like "Suifu Ryū"; the "Takeda Ryū" and the "Usuki Ryū" which were developed in Kyūshū; and "Sasanuma Ryū" which was used in lakes. There was great rivalry among the exponents of the different schools even in their own party.

In 1810 at the swimming match before the Shōgun Tokugawa-Iyesada, twenty-five good swimmers of each party competed for three days.

In the period of Meiji swimming was not used as a military art, but it was taken up in the schools. At each school, practice was held during the summer vacation. In the records of this period it is stated that in 1873 Sutezō Ohta swam 150 metres in 1 minute, 30 seconds.

Afterwards in 1898 the first swimming match between England and Japan was held at Yokohama. In this match the Japanese won the 100 yards, and the 440

yards races and Arbin, an English-man, won the 880 yards race.

Before the Seventh Olympiad

The participation of Yosaburō Ugai for the first time in the Second Far Eastern Championship Games at Shanghai in 1915 marked the formal entrance of the Japanese in an international match. China, Philippines and Japan participated in this meet. At that time Ugai won first place in four races: 50 yards in 32.4 seconds; 100 yards in 1 min. 9.6 sec. 440 yards in 7 min. 21 sec. and one mile in 31 min. 59.4 sec.

At the Third Far Eastern Championship Games in 1917, Kanekichi Saitō won the 50 yards race in 26.6 sec. and 100 yards race in 1 min. 5 sec.; 220 yards won by Seiren Uchida in 2 min. 46.2 sec. and 880 yards in 13 min. 42.6 sec.; 440 yards won by Michitarō Nōjū in 6 min. 46.2 sec.; one mile won by Yutaka Imamura in 29 min. 43 sec.; 100 yards back stroke won by Yasukazu Miyoshi in 1 min. 23.4 sec.; 220 yards breast stroke won by Yoshiharu Takahama in 3 min. 29 sec.; and 200 yards relay was won by a Japanese team in 1 min. 51.6 sec. The Japanese took not only all the first places in the races, but also second and third. Thus the swimming of the Japanese became famous throughout the Orient.

At that time there were some who used a style of swimming resembling the crawl stroke, but most of the swimmers used that of ancient Japan. The style used

in swims up to 440 yards was called "Chimba-Nuki" in which the swimmer used the right and left hands alternately, with feet fluttering. In races of more than 800 yards the type of swimming practiced was called "Kata-Nukite-Hitoe-Noshi," a style in which the swimmer made the body turn sideways and if he were left-handed he drew out his left hand only and kept the right hand always in the water. Back stroke was not known then in Japan, but from that time on the swimmers mastered this stroke. It was different from the modern back stroke however, in that they used to begin the stroke by drawing both hands out together.

In 1919 S. Uchida alone took part in the Fourth Far Eastern Championship Games held at Manila, and took two first places: one of them was 50 yards with the time of 27 sec. and the other was 440 yards race with the time of 6 min. 38.6 sec. As swimming in Japan made rapid progress, Japan sent S. Uchida and K. Saitō to the Seventh Olympic Games at Antwerp in 1920. It was the first time that Japanese swimmers were to perform in a first-class meet. At that time the Japanese depended upon those two champions very much and thought they would surely win. However, on the contrary, when they participated at the Antwerp meet they could not pass even the first trial heat in the 100 metres race. In the 400 metres and 1500 metres swims Saitō passed the first trial heat, but he was sifted down at the semi-finals. This taught

an important lesson about swimming to the Japanese and was the first advance towards a new dawn.

When those two champions came home, they exclaimed: "In a swimming race the crawl stroke must be used for both short and long distances. Swimming in Japan to this day is just a means of crossing the sea or river, and is not adaptable for swimming in the calm waters of a pool."

So the Japanese ancient way of swimming gradually disappeared from the races, and the new swimmers tried hard to master the crawl stroke.

The Japanese swimming world, however, was financially unable to acquire the aid of a foreign coach nor could the thinking people of the community see the importance of such a thing. Therefore the champions were compelled to study books on the crawl stroke published in England and America. At that time there were no good pools in Japan. When a race was held, the course was made by floating boats on the river, or dividing a part of a lake, therefore there were no lines at the bottom nor on the water. Also the depth was irregular being 2 metres in the shallow part, but 5 metres in the deep part. Even in the midst of a race the swimmers hit against fishes and tadpoles. As the only indoor pool which was 20 yards long was at the Tokyo Y.M.C.A., the champions of the city always gathered there to practise. These champions devoted themselves to the crawl stroke, swimming under the banner of the Y.M.C.A.

In the meantime, at the Ibaraki Middle School in the suburbs of Osaka City, a pool was made by the students themselves who labored in commemoration of the Imperial Coronation of Emperor Taishō. At this school young boys, 14 or 15 years old, were taught the crawl stroke. At one time most of the Japanese champions came from these two circles. From the Y.M.C.A. came Ikkaku Matsuzawa who was the head coach of the swimming division of the Olympic Games, Los Angeles; and from the Ibaraki Middle School came Katsuo Takaishi.

At the Sixth Far Eastern Championship Games held at Osaka in 1923, Onoda won the 50 yards swim in 26 sec. and the 100 yards in 58.4 sec.; Takaishi won the 440 yards in 5 min. 39.6 sec. and the 1 mile in 24 min. 50.2 sec.; Takahiro Saitō won the 100 yards back stroke in 1 min. 12 sec.; and Fujimoto won the 220 yards breast stroke in 3 min. 12.6 sec. Thus Japan subjected Chinese and Filipinos to a thorough beating. Though Takaishi's fame was already recognized in Japan, this was the first time that he showed his skill at an international meet. At that time he was only seventeen years' old, but it was recognized that his swimming style was very promising. Saitō also made a new place in the back stroke.

Before this, when the Fifth Far Eastern Championship Games were held at Shanghai in 1921, the Japanese champions were beaten by the Filipinos which left them

disappointed. Then there arose a cry to reform swimming. At last the swimming champions separated from the Japan Amateur Athletic Association and established an intercollegiate swimming association. Under the new plan, the first intercollegiate meet took place in 1921, and Meiji University won. At that occasion Dr. Izutarō Suehiro acted as referee, and since then he has become a leader in swimming circles in Japan.

The Olympic Games in Paris

In the Eighth Olympic Games held in Paris in 1924, Takaishi, Saitō, Onoda, Noda, Miyahata and Ishida took part. At that time Takaishi took fifth place, with the time of 1 min. 3 sec. in the 100 metres swim; and in the semi-finals he made a record of 1 min. 2.4 sec. which was the best record of that time. Also in the 1500 metres swim he again took fifth place with the time of 22 min. 10.8 sec.; and in the first trial he made a record of 21 min. 49.4 sec. which also became the best record in Japan. Saitō took sixth place in the finals of the back stroke and in the semi-finals he made a record of 1 min. 19.6 sec. which was his best at that time. The 800 metres relay team, which was made up of Takaishi, Onoda, Noda, and Miyahata, took fourth with the time of 10 min. 15.2 sec. This was the first occasion in which the Japanese swimmers were recognized by the world. It was not a good showing as compared with the present, but it was worthy of surprise at that time.

EIGHTH OLYMPIC GAMES

Paris, 1924.

←Party of Japanese Track, Field and Swimming Champions at the Olympic Village Near Paris.

Andrew Charlton of Australia, Winner of 1500 Metres Free Style, Left; Arne Borg of Sweden, Right.

↙

John Weissmuller of U.S.A., Winner of 100, 400 Metres Free Style.

↓

↑

Katsuo Takaishi, First Japanese Swimmer to Place in Olympic Games. He Took 5th in 100 and 1500 Metres Free Style and Was a Member of the 800 Metres Relay Team Which Placed 4th.

SEVENTH FAR EASTERN CHAMPIONSHIP GAMES

Manila, 1925.

Japanese Champions Won in 50, 100, 400 and 1500 Metres Free Style; 100 Metres Back Stroke.

Japanese Swimmers Who Participated in This Meet. →

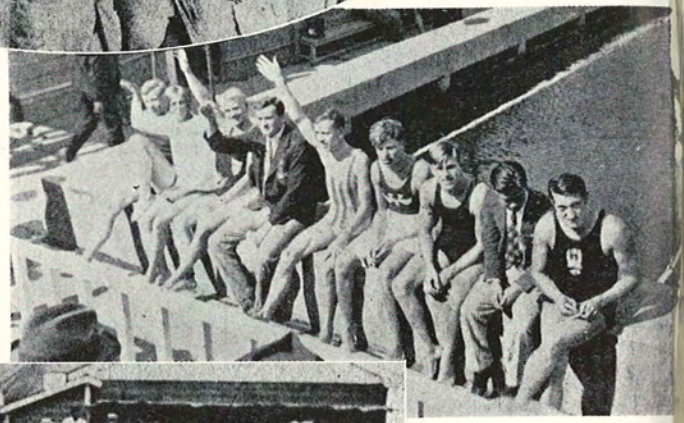
TRIPS TO HAWAII

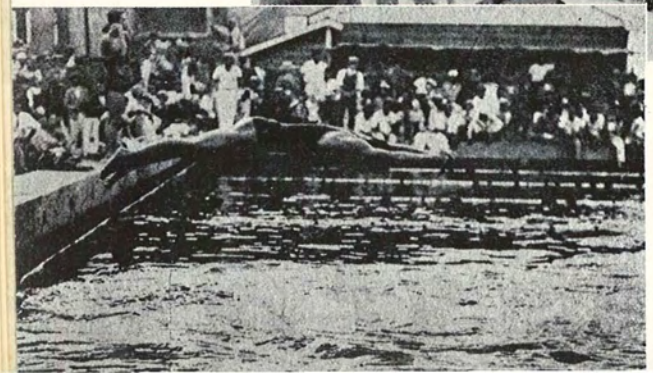
First Japanese Swimming Team to Visit Hawaii, 1926. Left to Right: Takaishi, Arai, Noda, Miyahata, Kimura, Saito. →

←Japanese Swimmers Who Participated in All-American Swimming Championship Meet, 1927, Hawaii. Left to Right Saito, Coach; Arai, Takaishi, Kimura, Sata, Tsuruta.

INTERNATIONAL MEET IN TOKYO →

Australian and American Swimmers Who Participated in a Swimming Meet in Tokyo, 1927, at Tamagawa Pool. At Extreme Left is Laufer, U.S.A.; Extreme Right, Glancy, U.S.A.; Third from Right, Crabbe, U.S.A.





←800 Metres Relay Race in Above Meet Which the Japanese Team Won Making a New Record.

In 1925 the Seventh Far Eastern Championship Games were held at Manila. Takaishi placed first, with the time of 27.6 sec. for 50 metres; with 1 min. 2.2 sec. for 100 metres; and with 5 min. 31 sec. for 400 metres. The 1500 metres swim was won by Noyori, a young boy, in 22 min. 9 sec. The 100 metres back stroke was won by Ueda in 1 min. 15.2 sec. who reached the heights by changing the old record. When they arrived home, Takaishi made a Japanese record of 59.4 sec. for 100 metres, 1 min. 17.8 sec. for 200 metres, 5 min. 11 sec. for 400 metres, 21 min. 5.9 sec. for 1500 metres swim and reached the level of the world. It was a great event when Kimura made a new record of 1 min. 17 sec. for the 100 metres back stroke.

Till that time the Japanese swimming circle was governed by the swimming division of Japan A.A.A., although the intercollegiate group held the real power. In the autumn of that year when the Meiji Shrine Games were held in Tokyo, in commemoration of the eminent virtue of the great Emperor Meiji, the intercollegiate leading body, through its seniors, issued circular letters to the many swimming parties of Japan and at last succeeded in affiliating the different groups and established the Amateur Swimming Federation of Japan. This new system proved very effective and its establishment is one of the reasons for the development of swimming to its present leading position.

The Swimming Races Between Hawaii and Japan

In the summer of 1926 Japanese champions went to Hawaii by invitation. This was the only contest outside of Japan except the Olympic Games and Far Eastern Championship Games in which the Japanese participated. It was in preparation for the next Olympic Games for which the champions had to go out of the country and thus have experience. Also the pick of America was at Hawaii at that time. The results were as follows:

100 Metres

Won by	Takaishi, Japan	Time: 59.4 sec.
Second	T. Wood, Hawaii	
Third	Saitō, Japan	

200 Metres

Won by	Takaishi, Japan	Time: 2 min. 19.4 sec.
Second	Noda, Japan	
Third	T. Harris, Hawaii	

400 Metres

Won by	Takaishi, Japan	Time: 5 min. 12.0 sec.
Second	B. Wood, Hawaii	
Third	Arai, Japan	

100 Metres—Back Stroke

Won by	Kialoha, Hawaii	Time: 1 min. 11.4 sec.
Second	Luning, Hawaii	
Third	G. Harris, Hawaii	

200 Metres—Back Stroke

Won by	Kialoha, Hawaii	Time: 2 min. 42.4 sec.
Second	Kimura, Japan	
Third	G. Harris, Hawaii	

800 Metres—Relay

Won by Japanese Team Time: 9 min 44.0 sec.

In the autumn of that year the Hawaiian Team visited Japan. The records were as follows:

100 Metres: Won by Takaishi Time: 1 min.
200 Metres: Won by Takaishi 2 min. 16.8 sec.
400 Metres: Won by Sata 5 min. 20.2 sec.

100 Metres—Back Stroke

Won by Kialoha 1 min. 14.0 sec.

200 Metres—Breast Stroke

Won by Tsuruta 3 min. 0.2 sec.

800 Metres—Relay

Won by Japanese Team 9 min. 38.2 sec.

In that year Takaishi broke the Olympic records of Weissmuller with the time of 26.8 seconds in the 50 metres swim and 5 min. 3.4 sec. in the 400 metres swim. Tsuruta made a new record of 2 minutes 57.2 sec. in the 200 metres breast stroke, and Kimura made a record of 1 min. 16.6 sec. in the 100 metres back stroke. Thus they raised the level both in and out of the country. From the end of that year to the next spring Takaishi and Saitō were invited to Australia, where they took part in many swimming meets. Saitō came off victorious, and Takaishi competed in every free style race with Charlton who was the victor of the 1500 metres in Paris two years before.

During these years the swimming of Japan advanced a great deal.

Participation in the All-American Swimming Championship Meet

In 1927, Japan was invited to the All-American Swimming Championship Meet, and Takaishi, Sata, Tsuruta, Kimura, and Arai went there with Saitō as coach. Strong swimmers, such as the All-American champions were, beat the Japanese. In the 100 metres swim Takaishi took third place with the time of 58.6 sec. which was his best record in the 100 metres swim throughout his championship life of ten years. He also took fourth place in the 440 yards. Tsuruta took second place in the breast stroke. These seemed to be very bad results, but as they had pressed the American champions hard, they had no fear of them. Meanwhile others than the champions took part in the Eighth Far Eastern Championship Games at Shanghai where they won the 400 metres, 1500 metres, and the back stroke, but were beaten in the total score.

In the autumn, the Swimming Meet in Tokyo between America, Australia and Japan was held. It was regrettable that Weissmuller, Kojac, and Charlton did not come. Takaishi won in the 100 metres, 200 metres, and 400 metres. Tsuruta won in the breast stroke. The 800 metres was won by Crabbe. Back stroke was won by Laufer, and Iriye, who had a promising future, was second.

Also in this year new records were made: Arai with 21 min. 18.4 sec. for 1500 metres; Kimura with 1 min. 15.2 sec. for 100 metres back stroke; and Tsuruta with 2 min. 57.2 sec. for 200 metres breast stroke. They caused the Japanese swimming world to progress.

The Ninth Olympic Games

In the Olympic Games, Amsterdam, 1928; Sata, Takaishi, Noda, Yoneyama, Arai, and Takebayashi (free style); Iriye and Kimura (back stroke); and Tsuruta and Mawatari (breast stroke) took part under the leadership of Miyahata. On their way, there was a swimming meet between France, Japan and Australia in Paris. Takaishi won with the time of 1 min. 1 sec. for 100 metres; Sata with 2 min. 26.8 sec. for 200 metres; Iriye with 1 min. 16 sec. for 100 metres back stroke; and Tsuruta with 2 min. 53.2 sec. for 200 metres breast stroke. So they had great hopes for the future.

In the Ninth Olympic Games, however, Takaishi took third in the 100 metres; and in the 800 metres relay the Japanese team was second. Tsuruta won a victory in the 200 metres breast stroke and made a brilliant record. No other victory caused the Japanese team more joy than this.

Tsuruta said:

"When we started from Tokyo, we were in very good condition. I mentioned the fact to the coach, Miyahata, so he said we had better record our time.

So we ran up to the pool, and timed. The 100 metres breast stroke was 1 min. 17 sec. which was the best record I have ever made. Then when I swam especially in the pool of the Sporting Club at Paris I made the time of 2 min. 47.2 sec. for the 200 metres. As this record beats the world record (2 min. 48 sec.) of Rademacher of Germany, I gained self-confidence. At the contest between France and Japan I tried a scheme by which I swam the first 100 metres stoutly and the last 100 metres according to schedule. And it was very good. Before the Olympic Games I exercised hard three or four times a day and swam 2500 or 3000 metres. In the Olympic Games, in the first trial, my time was 2 min. 52 sec. and in the semi-finals, it was 2 min. 49.2 sec. In the finals till 150 metres, I swam for my life, and when I came to 170 metres I felt that some one came near. When I reached the goal, I won by 2 min. 48.8 sec. which was a new Olympic record. That evening as the sun-flag was unfurled I was full of deep emotion."

Then the Japanese champions gained more confidence and thought if they strived harder they would be the aces of the world.

During that autumn Japan invited Weissmuller, Arne Borg of free style; Laufer, Wyatt of back stroke; and Rademacher of breast stroke. In free style the lead was taken by Weissmuller and Arne Borg; back stroke was won by Laufer. Only breast stroke was won by Tsuruta.

NINTH OLYMPIC GAMES

Amsterdam, 1928.

Tsuruta, Winner of 200 Metres Breast Stroke with Rademacher, Germany, Who Took Second. →

George Kojac, U.S.A., Left and Alter Laufer, U.S.A., Right, Who Placed First and Second Respectively in 100 Metres Back Stroke. ↓

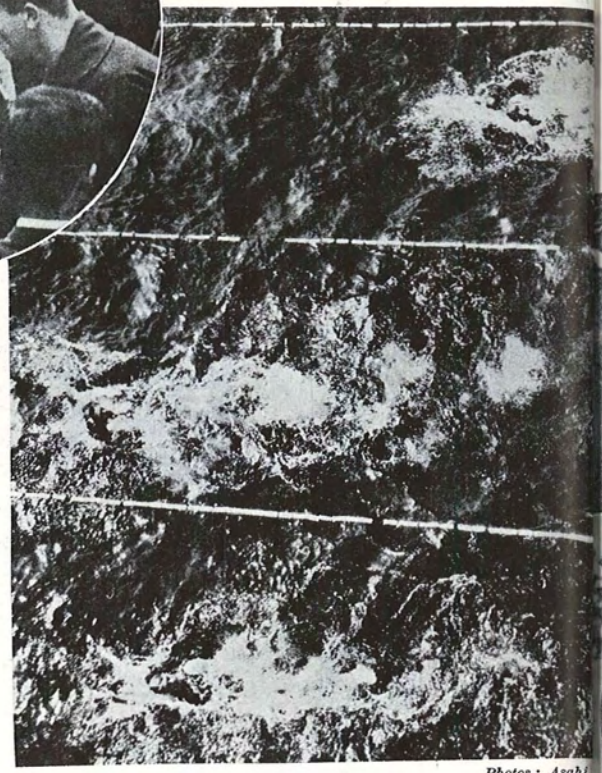
800 Metres Relay Team of Japan That Placed Second. Left to Right; Sata, Yoneyama, Arai, Tekaishi. →

Toshio Iriye, Left Insert, 4th in 100 Metres Back Stroke; Right Insert, A. Zorilla, Argentine, Winner of 400 Metres Free Style.

Photos: Asahi →

INTERNATIONAL SWIMMING MEET

In Celebration of the Wedding of H.I.H. Prince Chichibu, an International Swimming Meet Was Held under the Auspices of Tokyo Asahi at Tamagawa Pool, Tokyo, October 13, 14, 1928.
←Prince and Princess Chichibu Greeting the Swimmers.
200 Metres Back Stroke. Top to Bottom: Wyatt, U.S.A., Iriye, Laufer, U.S.A. ↓



Photos: Asahi

Circles From Top to Left to Right: John Weissmuller, U.S.A.; Tsuruta; Erich Rademacher, Germany; Arne Borg, Sweden; Takaishi.

JAPANESE MERMAIDS' 1st TRIP ABROAD

Japanese Women Swimmers Who Participated in National Women's Swimming Championships, Hawaii, 1929. Left to Right: Misses Yukiko Nakamura, Kimiko Kikuchi, Masako Iimura, Hideko Maehata. →

NINTH FAR EASTERN CHAMPIONSHIP GAMES

Tokyo, 1930.
← Yokoyama, Winner of 1500 Metres Free Style, Nearing Goal.

Japanese 200 Metres Relay Team, Which Made a World Record. Left to Right; Takaishi, Masuda, Takahashi, Miyamoto.
↓

←Takemura, Left, and Yoneyama, Right, First and Second Respectively in 400 Metres Free Style.

Yldefonso, Philippines, Winner of 200 Metres Breast Stroke, Shaking Hands with Tsuruta.
↓

Start of 400 Metres Free Style Trial Heat in the Ninth All-Japan Intercollegiate Swimming Championships, 1930. →

Kalili brothers, Manuella and Maiola, Left and Right Respectively, Who Participated in the All-Japan Swimming Championship Meet, 1930. They also Made Outstanding Records in the American-Japanese Swimming Meet in the Following Year. ↓

James Gilhula, U.S. A., Winner of 400 Metres Free Style in the American-Japanese Swimming Meet, 1931. →

Japanese 400 Metres Relay Team, Winner in the Same Meet. Left to Right: Sata, Katayama, Miyazaki, Takashi. ↓

But the form of these two champions gave an impetus to those in Japan.

Trip of the Meiji University to Hawaii

In 1930 at the Ninth Far Eastern Championship Games held in Tokyo, the Japanese were completely victorious, both in free style and back stroke, and there was no place for Chinese and Filipinos to enter. But the breast stroke was won by Adjaludin and Yldefonso; and Tsuruta was frightened, because he took only third place. In the 1500 metres Yokoyama made a good record of 20 min. 3.4 sec. On the whole the results were good.

That summer the Meiji University which had won in the intercollegiate meet of the previous autumn, went on a trip to Hawaii, and fought against the Hawaiian team and Yale University. As for results, the 200 metres was won by Sata in 2 min. 18 sec. Takemura took third in the 800 metres and second in 200 metres back stroke; Tsuruta took first in the 200 metres breast stroke in 2 min. 53 sec. time and Mawatari took second. Meiji won with a close margin, the score being Meiji 72, Yale 71. But in this meet the most active persons were the Kalili brothers and Crabbe.

Therefore that summer Japan invited the Kalili brothers and Battler of Yale University to the All-Japan Swimming Championship Meet. In this meet the Japanese champions played a very active part.

200 Metres—Back Stroke

Won by	Maiola Kalili, America	
	Time :	2 min. 39.4 sec.
Second	Kiyokawa, Japan	2 min. 40.2 sec.
Third	Kawazu, Japan	2 min. 40.4 sec.

100 Metres—Breast Stroke

Won by	Tsuruta, Japan	1 min. 16.8 sec.
Second	Fissler, America	1 min. 17.0 sec.
Third	Koike, Japan	1 min. 17.0 sec.

200 Metres—Breast Stroke

Won by	Koike, Japan	2 min. 50.0 sec.
Second	Tsuruta, Japan	2 min. 53.0 sec.
Third	Tsukahara, Japan	2 min. 56.0 sec.

300 Metres—Relay

Won by	Japanese Team	3 min. 28.2 sec.
Second	American Team	

400 Metres—Relay

Won by	Japanese Team	4 min. 04.4 sec.
Second	American Team	4 min. 06.0 sec.

800 Metres—Relay

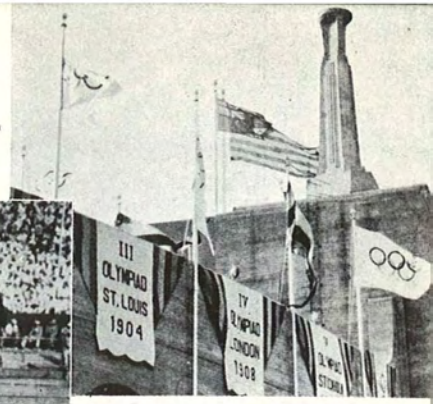
Won by	American Team	9 min. 17.0 sec.
Second	Japanese Team	9 min. 34.7 sec.

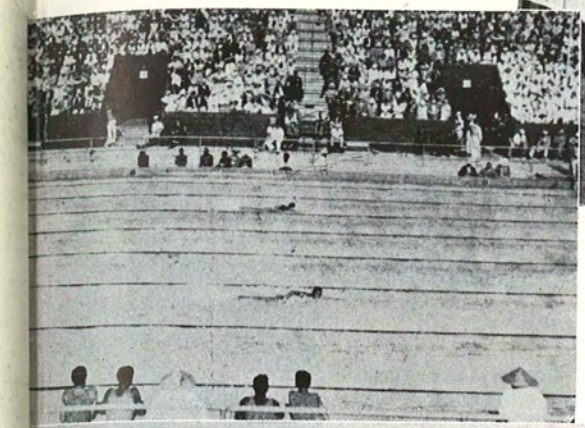
The score was forty to twenty-three, Japan winning. This meet added a great impetus.

After this meet Miyazaki broke the record of Takaishi in the 100 metres with his time of 59.2 sec. Besides, new champions came out continuously.

TENTH OLYMPIC GAMES

Tower of the Olympic Stadium, Los Angeles, 1932. →

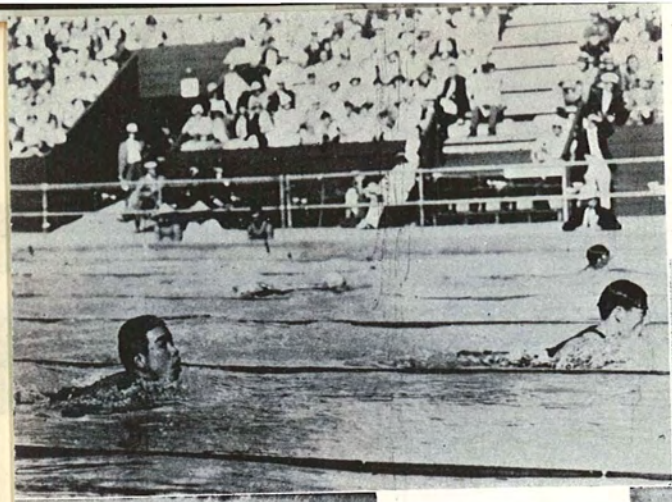




← 1500 Metres Free Style Final. Kitamura (Nearest Camera) and Makino (Farthest from Camera) Leading the Field.

↑ 800 Metres Relay Team Which Made a New World Record. Left to Right: Miyazaki, Yusa, Toyota, Yokoyama.

Japanese Swimming Team Which Participated in the Tenth Olympiad. →



← Tsuruta, Winner of 200 Metres Breast Stroke, Leading the Field in the Final. In the Lane Nearest Camera Is Koike Who Placed Second.

Scoreboard for 100 Metres Back Stroke Final. ↓

←Finish of the 100 Metres Free Style with Miyazaki, Winner, Shown in Center.

Gateway to the Olympic Village. ↓

← Clarence Crabbe, U.S.A., Winner of 400 Metres Free Style.

The Tenth Olympic Games

In preparation for the Tenth Olympic Games at Los Angeles, candidates, picked from the champions, trained and lodged together from December 25th in 1931 to January 10, and from March 21st to April 10th. The trial heats of the champions for the Olympic Games were held, and a staff and twenty-two swimming champions were chosen.

The formation was as follows:

Staff: Tabata, supervisor, Matsuzawa, coach; Noda, assistant coach; and Shimazaki, diving coach.

Champions:

Free style: Takaishi (captain), Miyazaki, Yusa, Toyota, Katayama, Takahashi, Kawaishi, Ohyokota, Yokoyama, Ishiharada, Makino, Sugimoto, Takemura brothers and Kitamura.

Breast stroke: Tsuruta, Koike and Nakagawa.

Back stroke: Kiyokawa, Iriye, Kawazu and Suzuki.

Besides these, four diving champions, a coach for women, six women champions, and a water polo team took part.

100 Metres

Won by	Y. Miyazaki, Japan	Time: 58.2 sec.
Second	T. Kawaishi, Japan	
Third	Al. Schwarz, America	
Fourth	Manuella Kalili, America	
Fifth	S. Takahashi, Japan	
Sixth	R. Thompson, America	

400 Metres

Won by	C. Crabbe, America	
	Time : 4 min. 48.4 sec.	
Second	J. Taris, France	
Third	T. Ohyokota, Japan	
Fourth	T. Yokoyama, Japan	
Fifth	N. Sugimoto, Japan	
Sixth	A. Charlton, Australia	

1500 Metres

Won by	K. Kitamura, Japan	19 min. 12.4 sec.
Second	S. Makino, Japan	
Third	J. Christy, America	
Fourth	N. Ryan, Australia	
Fifth	C. Crabbe, America	
Sixth	J. Taris, France	

800 Metres—Relay

Won by	Japanese Team	8 min. 58.4 sec.
	(Y. Miyazaki, M. Yusa, H. Toyota, T. Yokoyama.)	
Second	American Team	
Third	Hungarian Team	

100 Metres—Back Stroke

Won by	M. Kiyokawa, Japan	1 min. 8.6 sec.
Second	T. Iriye, Japan	
Third	K. Kawazu, Japan	
Fourth	D. Zehr, America	
Fifth	E. Küppers, Germany	
Sixth	R. Kerber, America	

200 Metres Breast Stroke

Won by	Y. Tsuruta, Japan	2 min. 45.4sec.
Second	R. Koike, Japan	
Third	T. Yldefonso, Philippines	
Fourth	E. Sietas, Germany	
Fifth	J. Adjaludin, Philippines	
Sixth	S. Nakagawa, Japan	

Thus, except for the 400 metres race, Japan won in five events, and in most of them three champions placed. In the best records Japanese won first, second and third places. The time of the races were better in the trial heats than in the finals. In the semi-finals of 100 metres, Miyazaki swam in 58 sec.; in the 200 metres breast stroke, Koike made the time of 2 min. 44.9 sec. So they made new Olympic records in every event except the back stroke.

In the women's division, the Japanese swimmers were dropped in the trial heats with the exception of Miss Hideko Maehata. She took second place in the 200 metres breast stroke with the time of 3 minutes, 06.4 seconds losing a very close race to Miss Clare Dennis of Australia.

In diving K. Kobayashi won sixth place in Spring Board Diving, Ikue won eighth, and in High Diving, Ishida took eighth. Water Polo team was beaten by America, Hungary, and Germany, and by default of Brazil, Japan won only one game.

By the great victory in these swimming races, the

Japanese swimming world became outstanding at one bound.

On the way home from Los Angeles, at the Swimming Meet between the three Continents held at San Francisco, Japan won again in the 800 metres relay with the time of 9 min. 1.4 sec. and so established her standing. Though at that time Japan was criticised in many ways by every nation, this great victory was due to the excellence of our system of training, and the fact that our swimmers endeavored to excel in the field.

In 1933 at the All-Japan Swimming Championship Meet, Makino made a new world record of 4 min. 46 sec. in the 400 metres; Yusa swam the 200 metres, in 2 min. 13 sec.; Koike swam the 100 metres breast stroke, in 1 min. 14.8 sec. so they renewed the world records in a long course pool. Also in the 1000 metres Kitamura made a new world record of 12 min. 46 sec. and in the 1500 metres he swam in 19 min. 8 sec. which was next to the world record of Arne Borg which is 19 min. 7.2 sec.

Moreover at the Swimming Events of the Sixth Meiji Shrine Games Kiyokawa made the record of 5 min. 34.0 sec. in the 400 metres back stroke. Thus rapid progress has been made in the swimming of Japan.

In 1934, at the Tenth Far Eastern Championship Games held in Manila; Japanese swimmers won all the events except the 200 metres breast stroke. But tired from this trip they were not restored to good health,

till the All-Japan Swimming Championship Meet in August; and leading swimmers became ill one after another. Albert Van de Weghe, America, took the championship of this meet with the time of 1 min. 8.8 sec. in the 100 metres back stroke; and with 2 min. 33.2 sec. in the 200 metres back stroke which was the world record. In the 400 metres Jack Medica beat Makino in 4 min. 47.8 sec. In the 1000 metres Honda, a new man, made a new record of 12 min. 41.8 sec. and showed that the swimming power of Japan would not decline. Meanwhile fresh men came out and is keeping on coming into the swimming circle.

The Second American-Japanese Swimming Meet

The Japanese Swimming world was enlivened by the Second American-Japanese Swimming Meet held in 1935.

From about June of that year, the various universities held dual meets but there were no outstanding records made, leaving the Japanese swimming world to believe that Japanese swimming was on the decline. But just before the meet, new records were made in the various events.

During the practice, Hiroshi Negami swam the 400 metres race in the record time of 4 min. 41.4 sec. This was the beginning of the surprising new records which were made simultaneously with the opening of the preliminary meet. These were:

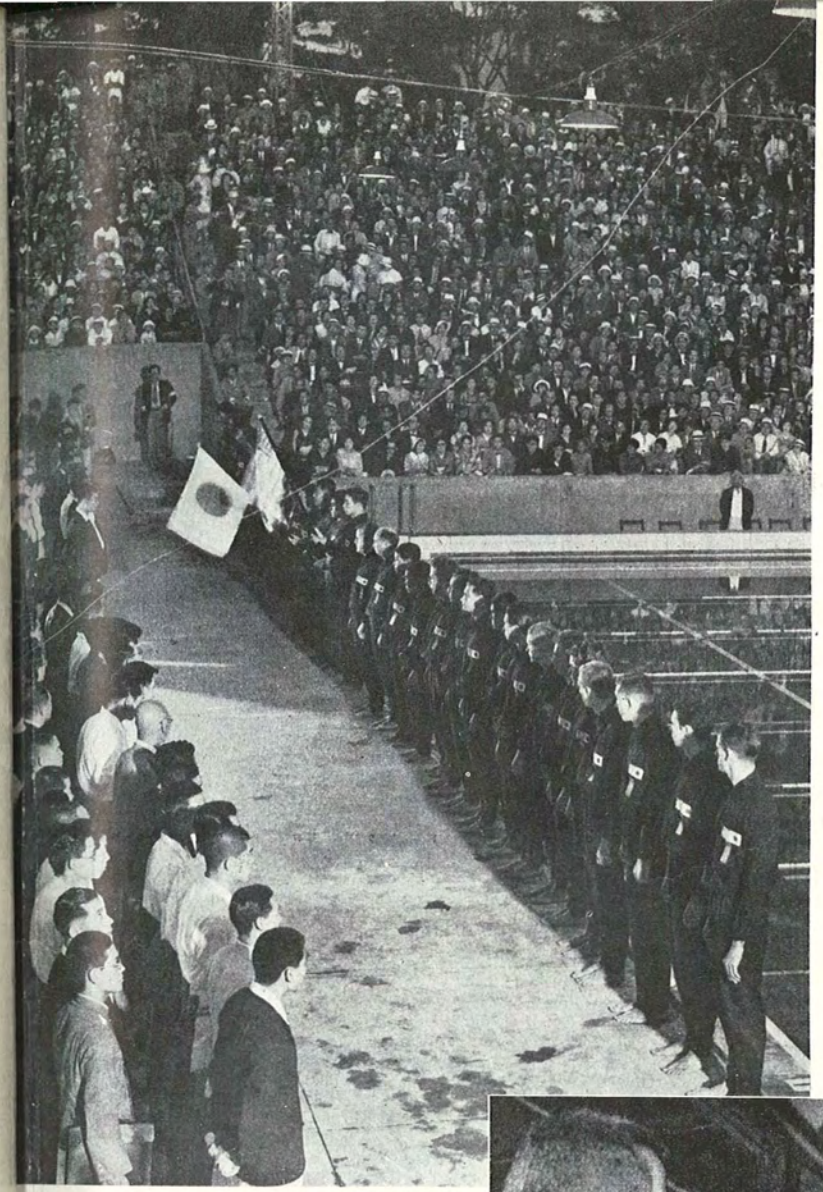
Event	*Name*	*Time*
400 Metres Free Style	Hiroshi Negami,	4 min. 45.8 sec. (New world record)
100 Metres Free Style	Masanori Yusa,	57.8 sec. (New Japanese record)
100 Metres Breast Stroke	Reizō Koike,	1 min. 13. sec. (New Japanese record)
200 Metres Breast Stroke	Reizō Koike,	2 min. 41.2 sec. (New world record)
200 Metres Back Stroke	Kiichi Yoshida,	2 min 35.2 sec. (New Japanese record)

In this way the participants of the coming meet were selected. Out of the 14 swimmers who were selected, only five of them; Yusa, Makino, Ishiharada, Koike, Kawazu had participated in the Los Angeles Olympiad. Others were either new men or those who had not been outstanding.

But as head coach for the Japanese team, Ikkaku Matsuzawa was again selected. The coach for the American team was Robert J. H. Kiphuth. Since 1931 these two men have faced each other as coaches of opposing teams.

The American-Japanese Swimming Meet was held for three days, August 17, 18, 19 at the Tokyo Meiji Shrine Swimming Pool which has a capacity of 12,000. The meet was packed with fans during these three days, thus the interest of the Japanese in swimming can be

2ND AMERICAN-JAPANESE SWIMMING MEET

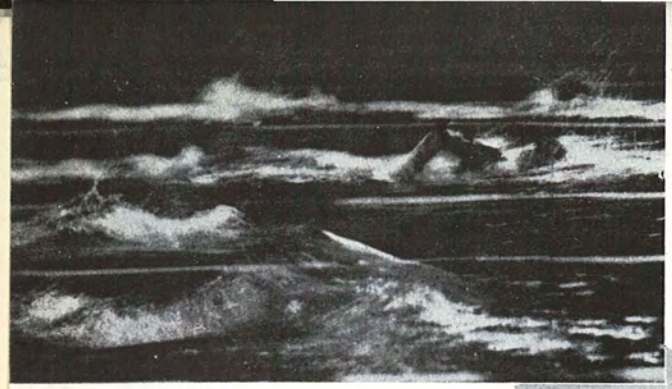


Photos: Asahi

↑

Opening Ceremony of the Second American-Japanese Swimming Meet, Held at Meiji Shrine Pool, Tokyo, August, 1935.

American Coach Kiphuth (Left) and Japanese Coach Matsuzawa (Right). →



←Close Race in 1500 Metres Free Style. From the Nearest Lane: Makino, Medica, Ishiharada (First), Negami.

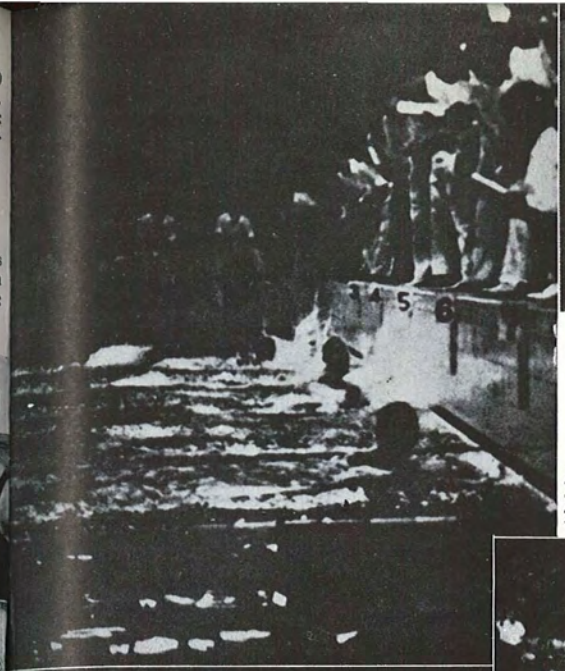
Winners of 300 Metres Medley Relay, American Team. Left to Right: Kasley, Fick, Drysdale.
↓

Medica, U.S.A., Sets a New World Record in 400 Metres Free Style. Time: 4 min. 45.2 sec. Medica seen in Lane 6; Negami in Lane 7.
↓

Winners of 100 Metres Breast Stroke. Left to Right: ← Hamuro, Third; Kasley, U.S.A., Second; Koike, First.

100 Metres Breast Stroke, 10 Metres from the Goal. From Right to Left: Higgins, U.S.A.; Koike; Kasley, U.S.A.; Hamuro; Kay,→ U.S.A.

Photos: Aashi



Asahi

↑

Winners of the 800 Metres Free Style. Right to Left: Negami, First; Jack Medica, U.S.A., Second; Ishiharada, Third.

Asahi ←Finish of 800 Metres Free Style. Negami in Lane 7 and Medica in Lane 6.

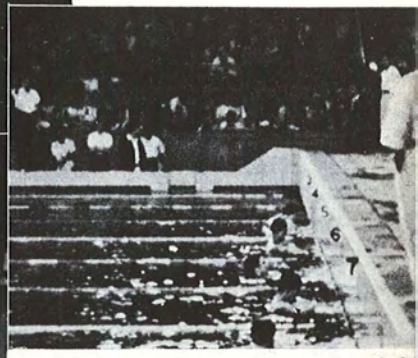
Shimbun Renzo

↑

800 Metres Relay Team Which Made a New World Record. Left to Right: Negami, Yusa, Ishiharada, Makino.

Start of Anchor Man, Negami of the Japanese Team in the 800 Metres Relay. →

Asahi



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↑

Start of 100 Metres Back Stroke. From 3rd Lane: Zehr, U.S.A., Kawazu, Drysdale, U.S.A (First), Yoshida, Branch, U.S.A.

AFTER THE MEET

Coach Matsuzawa and Japanese Swimming Team Seen Going to Meiji Shrine to Pay Their Respects. →

American Swimmers Intrigued by Japanese *Samisen*. From Left to Right: Flanagan, Wolf, Lindegren, Medica, Higgins. →

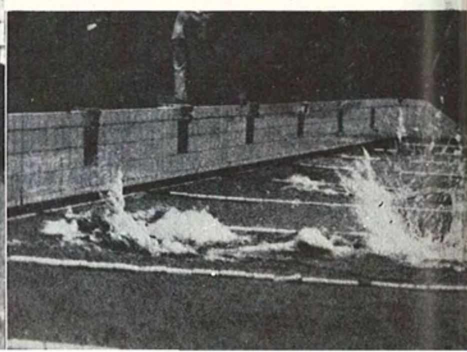
Coach Robert Kiphuth.
↓ *Photo: I.Y.W.C.S.*

Photos: Asahi

ALL-JAPAN INTERCOLLEGIATE SWIMMING CHAMPIONSHIPS

September, 1935, Meiji Shrine Pool, Tokyo.

Negami and Makino (Nearest Camera) Finishing the 400 Metres Free Style Race, in Which Both Broke World Record. Time: Negami, 4 min. 45.2 sec.



seen. Because of this, one can infer that the development of Japan's swimming was as rapid as it was.

The results were:

100 Metres Free Style

1. Peter Joseph Fick (U.S.A.) Time: 57.2 sec.
2. Masanori Yusa (Japan) 57.8 sec.
3. Shigeo Arai (Japan) 59. sec.

200 Metres Free Style

1. Masanori Yusa (Japan) 2 min. 13.2 sec.
2. John J. Macionis (U.S.A.) 2 min. 14. sec.
3. Arthur Lindegren (U.S.A.) 2 min. 14.6 sec.

400 Metres Free Style

1. Jack Medica (U.S.A.) 4 min. 45.2 sec. (New world record)
2. Hiroshi Negami (Japan) 4 min. 45.2 sec. (New world record)
3. Shōzō Makino (Japan) 4 min. 46.8 sec.

800 Metres Free Style

1. Hiroshi Negami (Japan) 10 min. 2.4 sec.
2. Jack Medica (U.S.A.) 10 min. 2.4 sec.
3. Sunao Ishiharada (Japan) 10 min. 3.2 sec.

1500 Metres Free Style

1. Sunao Ishiharada (Japan) 19 min. 12. sec.
2. Shōzō Makino (Japan) 19 min. 21.8 sec.
3. Hiroshi Negami (Japan) 19 min. 22.8 sec.

100 Metres Breast Stroke

1. Reizō Koike (Japan) 1 min. 13.6 sec.
2. Jack E. Kasley (U.S.A.) 1 min. 14. sec.
3. Tetsuo Hamuro (Japan) 1 min. 14.6 sec.

200 Metres Breast Stroke

1. Reizō Koike (Japan) 2 min. 42.6 sec.
2. Tetsuo Hamuro (Japan) 2 min. 43.6 sec.
3. John H. Higgins (U.S.A.) 2 min. 46. sec.

100 Metres Back Stroke

1. Taylor Drysdale (U.S.A.) 1 min. 10.2 sec.
2. Russell E. Branch (U.S.A.) 1 min. 10.6 sec.
3. Kentarō Kawazu (Japan) 1 min. 12.6 sec.

200 Metres Back Stroke

1. Kiichi Yoshida (Japan) 2 min. 35.6 sec.
2. Daniel R. Zehr (U.S.A.) 2 min. 39. sec.
3. Kentarō Kawazu (Japan) 2 min. 40.4 sec.

300 Metres Medley Relay

1. U.S.A. Team (Drysdale, Kasley, Fick) 3 min. 20.2 sec.
2. Japanese Team (Yoshida, Koike, Yusa) 3 min. 20.8 sec.

400 Metres Relay

1. U.S.A. Team (Chrostowski, Lindegren, Wolf, Fick) 3 min. 53.8 sec.
2. Japanese Team (Arai, Shimura, Hirano, Yusa) 3 min. 55.6 sec.

800 Metres Relay

1. Japanese Team (Yusa, Ishiharada, Makino, Negami) 8 min. 52.2 sec. (New world record)
2. U.S.A. Team (Fick, Macionis, Lindegren, Medica) 8 min. 58.6 sec.

Japanese team won the meet by 36—27 points. Th captain of the American team, James Gilhula, could not participate, due to illness and in the back stroke two American swimmers were disqualified because of fouls; for these two reasons the difference in the point score was so great. If the American team were in the best of conditions, the meet would no doubt have been much closer.

The All-Japan Intercollegiate Swimming Championships

Soon after the American-Japanese Meet, the All-Japan Intercollegiate Swimming Championships was held on September 13, 14 and 15. The swimmers were in the best conditions and the Waseda University Team won by an overwhelming score.

Some of the outstanding records made were:

Event	*Name*	*Time*
100 Metres Free Style, Semi-Final,	Masanori Yusa (Nihon U.)	57.2 sec.
400 Metres Free Style, Final,	Hiroshi Negami (Rikkyō U.)	4 min. 45.2 sec. (New world record)

Event	*Name*	*Time*
200 Metres Breast Stroke, Final,	Tetsuo Hamuro (Nihon U.)	2 min. 42.4 sec.
	(Ties world record)	
100 Metres Breast Stroke, Final,	Reizō Koike (Keiō U.)	1 min. 13.6 sec.
	(New Japanese record)	
800 Metres Free Style, Final,	Shōzō Makino (Waseda U.)	9 min. 55.8 sec.
	(New world record)	
Final,	Hiroshi Negami (Rikkyō U.)	10 min. 0.8 sec.
	(New world record)	
200 Metres Relay, Final,	Waseda University team (Takemura, Shimura, Sakagami, Takahashi)	1 min. 46. sec.
	(New Japanese record)	

Thus the Japanese swimming circle is striving to produce the best swimmers by their united control.

Samurai Styles of Swimming

By Baron Masao Matsunaga

Japan's way of swimming has been, from ancient times, a part of the military arts training and a means for developing the body and soul. Of course, among the Samurai[1] class; it was a part of their training. Even among the peoples, swimming was respected and studied.

As the result of the encouragement given to the study of swimming by the various feudal clans during the Tokugawa Shogunate (1603-1867) swimming as a military art developed. The development of the various schools of military arts swimming was due to the conditions and situations of the rivers, seas, and lakes of the country. In accordance with the topographical differences in various parts of the country, there developed these schools of different types of swimming.

These schools were: in Kyūshū, (the southwestern island) the Kobori Ryū and the Yamanouchi Ryū; Shikoku, (southeastern island), the Suitoh Ryū; surrounding the Inland Sea, the Shinden Ryū; Kii, the Iwakura Ryū and the Nojima Ryū; Ise, the Kwankai Ryū; Yedo (present Tokyo), the Mukai Ryū; Mito, the Suifu Ryū.

1) *Samurai* were knights or warriors of Japan in the feudal times.

These schools strove to develop the technique of their particular style as well as to improve the mind. At the present time, these styles are not entirely satisfactory and in order to keep with the transition of the times and to fit the various requirements for the best swimming forms, techniques, and methods, a synthetic form using the best parts of the various schools, is being developed to meet all conditions and situations.

The writer believes that this swimming method, inherent and peculiar to Japan, must and will continue to develop.

Iwakura Ryu (Kii)[1]

Inatobi (Jumping as Grey Mullets) (*Plate 1*)

Inatobi is the fundamental method of jumping while swimming. Use the arm movement of the breast stroke and when the arms are stretched in front, press the water with force swinging the arms by the side and backwards. Bring the arms forward immediately to prevent the body from pitching forward. While going through these motions the upper part of the body should be above water. This is the chief characteristic which distinguishes this style. The legs, during this motion, should tread water (*fumi ashi*) until the body is stabilized, then later they should move in a circular motion.

1) This and the following names in parenthesis are names of provinces or localities where the swimming style first developed.

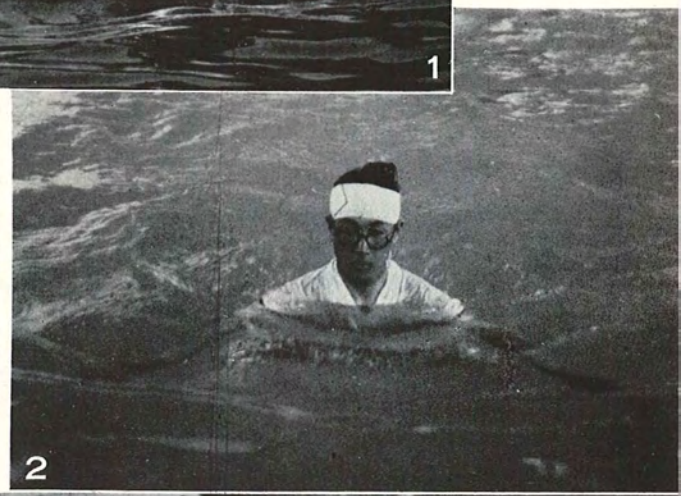
1

SAMURAI STYLES OF SWIMMING

1. "Inatobi" (Iwakura Ryu)
By Mr. Hiroshi Kawakami

2. "Hira-Oyogi" (Kwankai Ryu)
By Mr. Ujisada Ogiyama

3. "Katchu-Gozen-Oyogi" (Kobori Ryu)
By Mr. Tsutomu Matsuura



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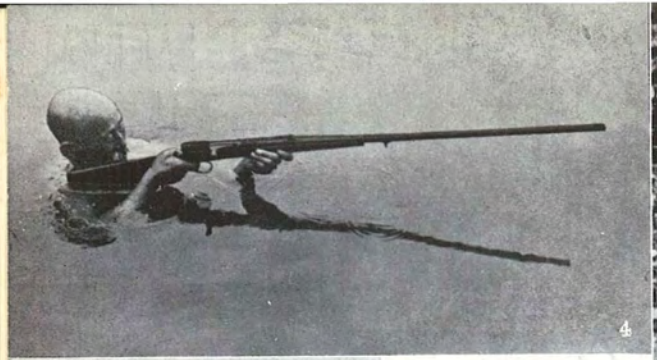

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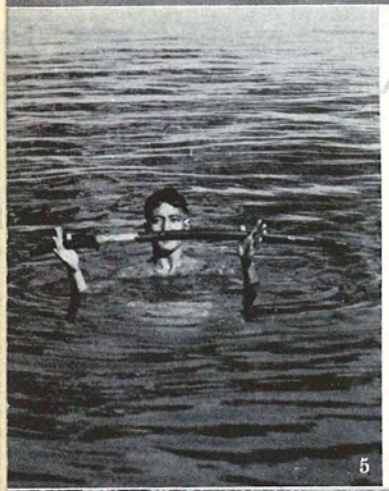

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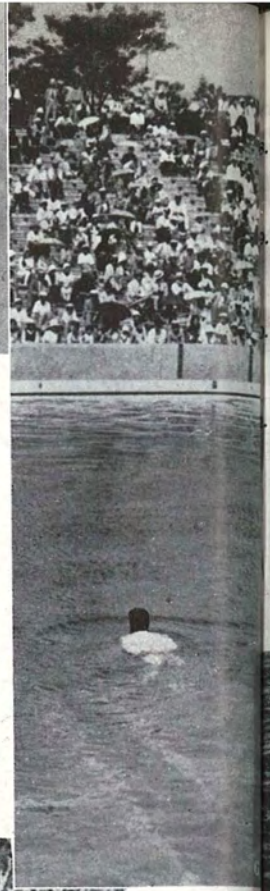
4. "Tachi - Oyogi - Shageki" (Tosuijutsu)
By Mr. Korehisa Otsuka

5. "Tachi-Oyogi" (Iwakura Ryu)
By Mr. Arata Hirao

6. "Shusoku-Garami" (Shinden Ryu)
By Mr. Koichi Toyama

7. "Ikada-Zumo" (Shinden Ryu)
By Members of the Shinden Ryu Yuei Kyokai

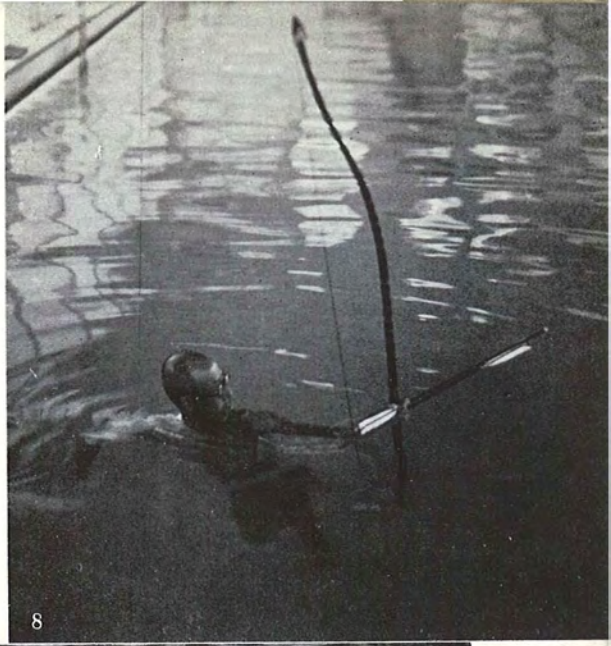


"Suikyu-Reisha" (Suifu Ryu, Ohta Ha)
By Mr. Goro Udagawa

"Kata-Nukite - Hitoe - Noshi" (Suifu Ryu, Ohta Ha)
By Dr. Shinichi Chiba

"Moro-Nukite" (Suifu Ryu, Ohta Ha)
By Miss Toku Kurimura

"Tachi-Oyogi" (Nojima Ryu)
By Mr. Eikichi Tatsumi



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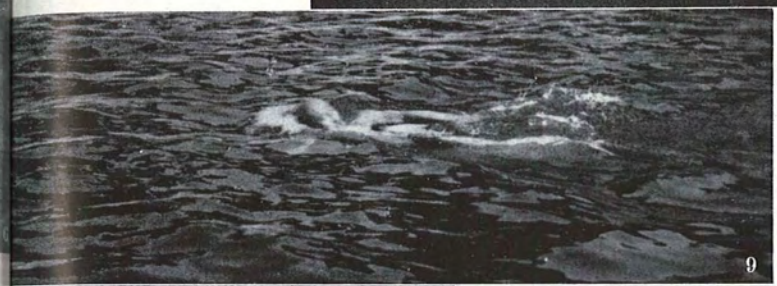

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12. "Suisho" (Nojima Ryu)
By Mr. Nobuo Narutomi

13. "Suichu-Watariai-no-Koto" (Mu Ryu) "*Maki-Otoshi*"
By Mr. Goro Hirono (Left)
Mr. Tsunejiro Hosono (Right)


13

14. "Sensu - Morogaeshi" (Mukai Ryu), "*Mae-Gamo*"
By Mr. Seiji Takahashi

15. "Sensu - Morogaeshi" (Mukai Ryu), "*Ushiro-Gamo*"
By Mr. Seiji Takahashi


14


15

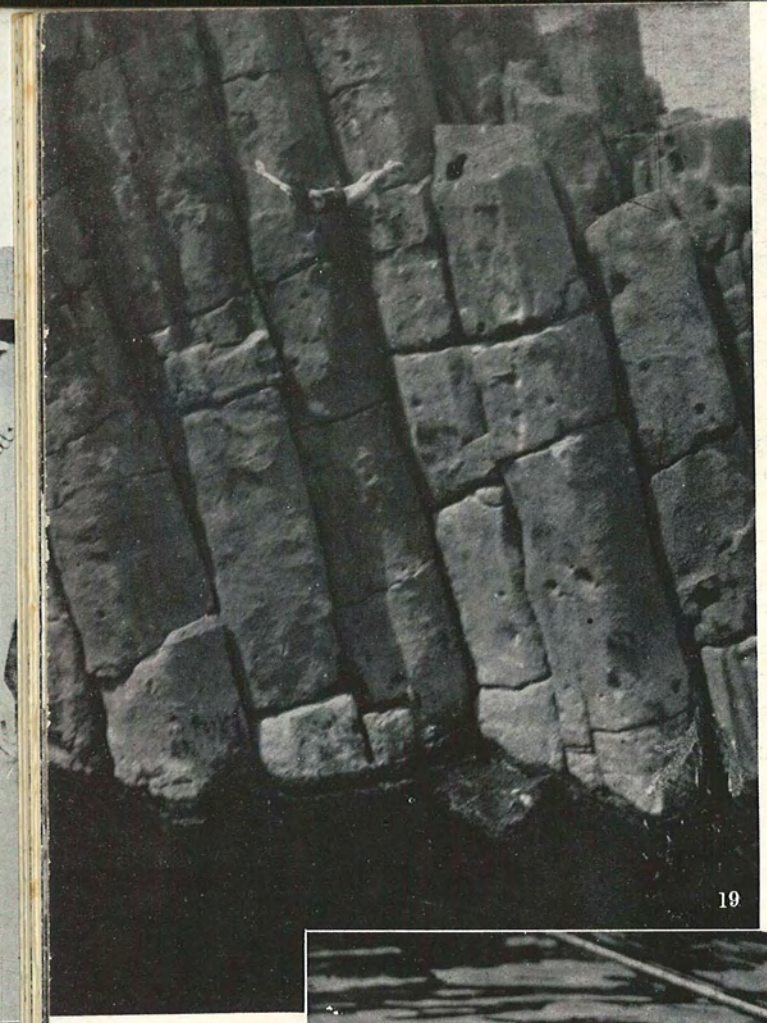

16

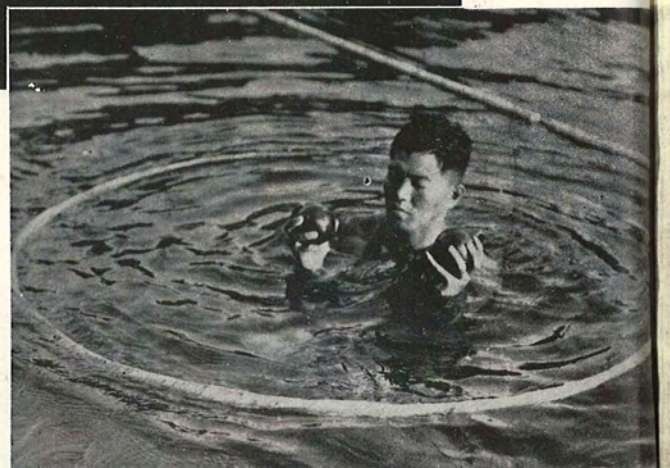
16. "Hora-Gai" (Yamanouchi Ryu)
By Mr. Jun Murase

17. "Reiki" (Yamanouchi Ryu)
By Mr. Akihiko Ando

18. "Ohbata-Okiwatari" (Yamanouchi Ryu)
By Members of the Usuki Yamanouchi Yuei-jo


17





19. "Saka-Tobi" (Suishin Ryu)
By Mr. Kumao Hagiwara

20. Shiju-Kyogi (Kyogi)
By Mr. Kihachiro Honda

This method is used to disentangle water plants and seaweeds that may be caught on the arms and legs; to get out of a whirlpool or an eddy; to break through a rapid current; or to jump up to a boat.

Tachi-Oyogi[1] (Swimming with a Sword) (*Plate 5*)

Tachi-Oyogi is an application of the *Rittai-Eihō* (treading water method) and the form is very refined. It reveals the serene spirit of the swimmer, as it is a composed and calm method. This is one of the ceremonial swimming methods which was often shown to the noblemen and high officials.

Kwankai Ryu (Ise)

Hira-Oyogi (Breast Stroke) (*Plate 2*) *By courtesy of Mr. Ujisada Ogiyama.*

Hira-Oyogi is the fundamental method of the Kwankai Ryū. In this style both arms move harmoniously and at the same time without using forced strength. The motions should utilize the movement of the joints, the stretching of them should be used as a preparation for the bending movement. The force should not come from the stretching but from the bending movement. In swimming this stroke a four beat count, "Yo-Yu-Ko-Re" is repeated in order to keep time and to swim smoothly.

1) There are two "*Tachi-Oyogi*." The Japanese ideograph for them is different though pronounced the same. In this case "*Tachi*" means *sword;* in the latter case it means *standing.*

This style resembles the modern breast stroke. The arm movement is about 1/2 stroke slower than the leg movement. The arms are used primarily for floating the body and the arm movement describes a half circle. The stroke should be done with ease.

The leg movement is the frog-kick. At the end of the kick, the legs should press the water between it and hold it and then draw the legs up slowly. This will force the body to float and to move forward.

The angle between the body and the surface of the water should be between 20° to 40°, so that if there is a slight wave which hits the face the swimmer can adjust his stroke accordingly. The face from the chin up should never be under water and should always face directly front. This style is used to swim long distances in the sea.

Kobori Ryu (Kumamoto)

Katchū-Gozen-Oyogi (Swimming with Armour in the Presence of Noblemen or High Officials) (*Plate 3*)

Among the various styles of swimming, this style is one of the most refined. It is so graceful that there is no stroke with which it can be compared.

This style is called "Katchū-Gozen-Oyogi" because it was the first stroke shown to the noblemen and high officials when they requested a demonstration.

In this style, the form is not so important as the

reverence of the soul or the spirit of the swimmer. The form is graceful and serene which is the essence of Japanese swimming. The swimmer wears an armour and a helmet, weighing about twenty-five pounds. It is chiefly used as a training for military art.

Tosuijutsu (Art of Crossing the Water)

Tachi-Oyogi-Shageki (Shooting while Treading Water) (*Plate 4*)

This style is used to train the legs so that the body may be put into any position with ease thus enabling the swimmer to do anything with their hands and arms. This was also used as training in military arts.

Shinden Ryu (Inland Sea)

Shusoku-Garami (Bound Wrists and Feet) (*Plate 6*)

By courtesy of Mr. Kōichi Toyama.

In the Shusoku-Garami the hidden principle of the Shinden Ryū is revealed, that is even with the wrists and ankles bound, one can swim. The action of the body is naturally limited but the breathing can be done easily and calmly.

Under the grouping of *Yagura-Waza* of *Shusoku-Garami* (diving with bound hands and feet) there is the *Chūgaeri* (somersault) form. This was practiced to enable the warrior to overcome the foe in the short space of time after plunging from a war vessel while grappling

with him in midair. Only by having courage as well as physical strength is one able to accomplish this feat.

Ikada-Zumō (Sumō[1] on a Raft) (*Plate 7*)

As there is a relation between swimming and combat on water, the military art of keeping balance and of being at ease on a rocking small boat is developed by the practice of Ikada-Zumō. The difference between Ikada-Zumō and that of Sumō on land is that the contestants cannot grab the loin-cloth of the opponent due to the unstableness of the wrestling arena; nor is a contestant deemed a loser if he is thrown on the raft; the contestant must be thrown off completely into the water before he is declared the loser.

Suifu Ryu (Mito)

Ohta Ha[2] (Tokyo)

Suikyū-Reisha (Shooting Arrows with Bow while Swimming) (*Plate 8*) *By courtesy of Mr. Gorō Udagawa.*

Japanese swimming has originated from military arts so it is imbued with it. Many styles and schools developed to meet the various conditions, and speed racing has never been the major object of swimming.

The Suikyū-Reisha is also one of the practices to float

1) *Sumo* is a Japanese national sport somewhat similar to wrestling. The main object in this sport is to throw the opponent either on the arena or off the rink.

2) *Ha* is a branch of a particular school.

and support the body with just the action of the legs so that the hands are left free to shoot arrows or anything else. Just shooting arrows will not suffice for it is based upon the systematic form or etiquette of archery, as it reveals the swimmers' attitude of stately serenity.

In the ancient times it was used in military tactics, especially in attacking feudal castles with its wide moats during the dark of the night. It was used often in *Yabumi* (a letter fixed to an arrow) which was shot into the castle, usually a summons to surrender. In the present day, its equivalent is the use of the aeroplane.

Kata-Nukite-Hitoe-Noshi (Over-Arm Side Stroke) *Ohtai-Eihō* (*Plate 9*)

The Ohtai-Eihō (side stroke method) is characteristic of the Suifu Ryū. The Kata-Nukite-Hitoe-Noshi is a side stroke with one over-arm stroke. (EDITOR'S NOTE: For fuller details see page 78.) This stroke was used to swim against the current or to cut across it.

Moro-Nukite (Over-Arm Stroke) (*Plate 10*)

In the Moro-Nukite both arms are pulled out of the water at the same time. It is similar to *Inatobi* of the Iwakura Ryū.

Tread water and with the palms of the hands press the water until it reaches the hips. During this time the legs should be wide apart and make circular motions.

The arms after reaching the hips are pulled out of the water by bending the elbow slightly and backwards. When the arms are backward and at the moment they are pulled out of the water, jump forward and then immediately pull the arms forward and repeat these motions. This stroke is used to cut across large waves. It is also a very effective method to develop the strength of the legs.

Nojima Ryu (Okayama)

Tachi-Oyogi (Treading Water) (*Plate 11*)

Tachi-Oyogi is a method of treading water with the upper part of the body out of the water and moving forward just as one walks across a smooth surface, therefore it is used in carrying things to their destination without wetting them.

The legs are moved in an ellipse with either an outward or inward circular movement, alternately. The stroke is done very energetically, rapidly, and continuously. But the swimmer must be careful that the body does not shake with the leg movements.

Suisho (Writing while Swimming) (*Plate 12*)

This stroke is one of the styles which leaves the hand free to do something while swimming. Suisho shows the mastering of *Tachi-Oyogi* so that there is a leeway in the use of the hands. This is also one of the ceremonial

styles which were shown to noblemen and high officials. Japanese calligraphy and drawing were demonstrated.

Mukai Ryu (Tokyo)

Suichū-Watariai-no-Koto (Combat while Swimming) (*Plate 13*) *By courtesy of Mr. Tsunejirō Hosono.*

In Suichū-Watariai-no-Koto there are many tricks such as: 1. *Yoko-Uchikomi* (hitting a blow from the side); 2. *Uchite-Tome* (stopping a blow by grabbing wrist of opponent and then drawing him in to strangle him); 3. *Ude-Hishigi* (stopping a blow through arm lock); 4. *Maki-Otoshi* (throw caused by stopping a blow by twisting the arm); 5. *Tsuki-te* (thrust); 6. *Ashi-Karami* (when the opponent kicks one's face, grab the ankle and twist it while tripping the other leg); 7. *Jūji-Shime* (crossed hand strangle hold); 8. *Ushiro-Shime* (strangle hold from the back).

These tricks belong to *Sudetsume-shiai* (contest without weapons) which is a part of *Ninzu-uke-suijutsu* (opposing enemies) under the Mukai Ryū.

Sensu-Morogaeshi (Swimming with Fans Held by the Toes) (*Plate 14, 15*)

Float on the back with the toes out of the water and place one fan between each of the big toes and second toes. The body is propelled by the action of the hands. With the head and toes out of the water, twist the body around until the swimmer is floating on his face. The

new position assumed is that of a water fowl swimming around. Then change back to the original position. The first position is called *Mae-Gamo* and the second, *Ushiro-Gamo*. This feat is a special art of the Mukai Ryū.

Yamanouchi Ryu (Usuki, Oita)

Reiki (Commanding with Flag) (*Plate 17*)

During combat in water, the advance or retreat of the warriors are ordered by the use of a large flag held by one of the swimmers. The size of this flag is usually 4 mat[1] (6 feet × 12 feet) and is made of paper. Even in the present day, this stroke is carried out as it was in the olden days. According to the order given, the flag is waved twice or three times. When the flag is held steady the swimmers advance by swimming in a slanting way.

Hora-Gai (Trumpet Shell) (*Plate 16*)

In the olden times the trumpet shell was blown to give orders to the warriors during combat. Later this trumpet shell was used to encourage the warriors as they were swimming across a body of water. Then again it was used to signal the advance or retreat of the swimmers.

1) *Mat* means a three feet by six feet straw matting used in Japanese homes, usually called *Tatami*.

Ohbata-Okiwatari (Swimming Holding a Large Flag while Crossing the Sea) (*Plate 18*)

In Ohbata-Okiwatari a slanting side stroke is used with the swimmer holding a large flag. The sizes of flags vary, the smallest one being 4 mat (6 feet × 12 feet) and the largest one 14 or 15 mats (about 15 feet × 18 feet). These flags, made of paper, are held supported by the hand, arm, shoulder or head and carried while crossing the sea. The larger the flag, the heavier it is and the body of the swimmer sinks, but the stroke used is the same.

In the ancient times spears, *naginata* (long handled sword), or *uma-jirushi* (a badge on a horse) were used instead of these flags but now the men hold banners with streamers while the women hold flowered parasols.

Suishin Ryu (Echizen)

Saka-Tobi (Headlong Diving) (*Plate 19*)

All of Japanese diving is based on practical uses, therefore one dives from a high place into a shallow body of water. When one becomes skilful, he can dive fifty or sixty feet into three feet of water.

The illustration, plate 19, was taken at Tōjin-boh cliffs in Echizen. The cliffs are 120 feet high.

Kyogi[1)]

Shijū-Kyōgi (Contest of Endurance, Swimming with Heavy Burden) (*Plate 20*)

Shijū-Kyōgi is a contest using *Rittai-Eihō* (treading water method). The contestant swims within a circle of about 1½ metres diameter holding two eight pound shot puts, one in each hand. The duration of the swim of each contestant decides the winner. The present record is 1 minute, 16.4 seconds.

1) *Kyogi* means contest.

Classic Swimming

There are many Japanese classic swimming schools as stated before. Their swimming methods differ slightly with every schools but the fundamentals are the same. These fundamentals can be divided into three body positions: horizontal, side and vertical. The following swimming methods are divided into fundamentals and not into *Ryū* or schools.

There are among these some forms which are not generally used at present because of the introduction of the modern racing forms but they are given here to show the development of the analytical study of Japanese swimming methods. These forms have a historical meaning which is rather difficult to convey by inadequate description such as the following.

The swimming methods may be generally classified as follows:

Heitai Eiho

(Horizontal Swimming Method.)

Frog-Kick Swimming

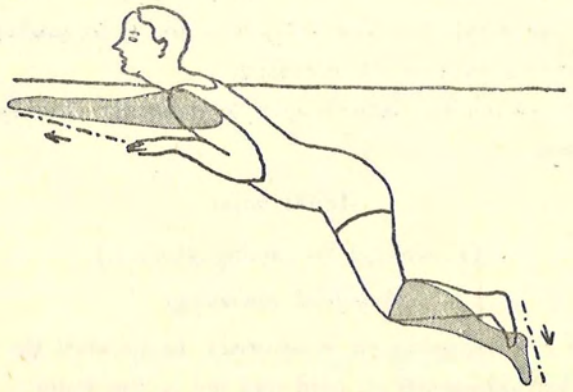
In the beginning, it is necessary to practice the arm and leg movements on land and not in the water. Rest the abdomen on a little stand or bench, and exercise the legs and arms. After one has mastered these movements harmoniously try it in the water. Try to swim clinging

to a rock in a shallow place, a piece of wood, or side of a boat. If there is a very shallow place, it is good to practise the movement of the legs while supporting the body with the hands at the bottom. Float in the water keeping an angle of about 40° with relaxed body and raise the head above the water facing front.

PREPARATION FOR STROKE:

Keep the chin in, look straight ahead, place the hands in front, fingers together, palms facing down and with elbows at the side. Then draw up the legs as much as possible, keeping the heels together. Do not bend the hips, but spread the knees apart.

FIRST MOTION:

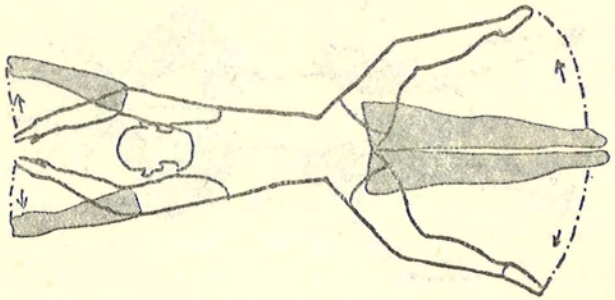


From the form at the start of the stroke move along the dotted line as illustrated. Stretch out the hands in front as much as possible with the hands about one or

two inches below the surface of the water and at the same time kick off spreading the legs as if to make the letter "V."

ATTENTION: At that time, try to push off calmly with the soles of the feet and slide forward.

SECOND MOTION:

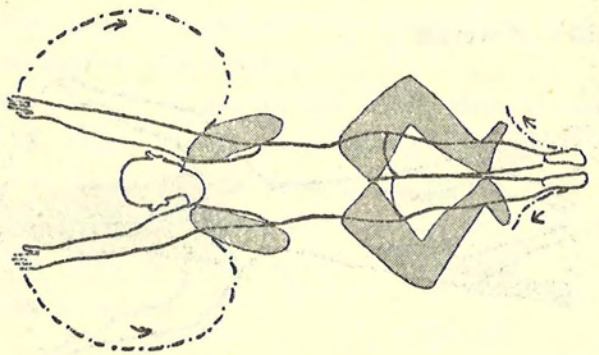


The second motion is shown in the illustration by the dotted line. With the arms outstretched and separated the width of the shoulder, try to press down, and not push, the water. At the same time, bring the legs together as if to hold the water between them.

ATTENTION: Go through the above motions continuously. Pay special attention to the legs. Both legs are vigorously snapped together, the movement starting from the thigh downward, the object being to force the water out and backward between the legs. When the heels meet before the knees are together, the power to move forward is lost for the water escapes at the knees.

When such is the case, there is fear that not only the power to move forward but also the power to float will be lost.

THIRD MOTION:



The third motion is given on the dotted line in the above illustration. Press down the water with the arms making a wide semi-circle and then bring the hands back to the starting position with force before reaching the shoulder line. When the legs are stretched out, rest in this position until the forward movement of the body slows down and then come back to the starting position drawing up the legs quietly.

ATTENTION: At this time one may naturally sink a little but do not hurry the leg movement, for it will prevent one from moving forward and apt to move backward. So with the soles together, draw the legs in

slowly back to the starting position. Many beginners are apt to push the water backward instead of pressing downward, so that the angle between the palms and the surface of the water becomes larger, the chest expanded and the head sinks down. Pressing down on the water will naturally float the body.

Special Points to Notice in the Frog-Kick

It is difficult for all to practice by the same method because they have different physiques and constitutions. If the essential points are badly practiced then the training and study will suffer loss as well as the body being very tired and the joints aching.

Pay attention to the following points:

A. When stretching out the arms from the starting position, the fingers should be about one or two inches below the surface of the water.

B. When moving the arms in a semi-circle it should not stroke but press down on the water to make the body float.

C. In the outward movement of the legs do not kick too strongly, for it will result in straining the hips and knees.

D. If one feels a weariness in the chest or hips it is a sign that the form is bad. Move the body easily as if on the ground. If one expands the chest or bends backward too much, the buttocks will show above the surface of the water; the

legs will be placed too shallow; and the neck will become strained. Therefore do not put strength in unnecesary muscles.

E. When one finds that he is not gaining speed it is due to any of the following reasons: When the angle between the body and the surface of the water is wrong; when holding the water between the legs the breathing and motions are not in harmony; when the water is pushed by the instep instead of the sole in the leg kick; when putting strength in muscles which should be relaxed and when relaxing muscles which should have strength. All this not only affects the speed but also causes the swimmer to tire easily.

In breathing, exhale while going through the stroke from the starting position through the second motion; inhale while doing the third motion and back to the starting position. The reason for this harmony between breathing and motion is because it is easy to sink in the third motion therefore one inhales to aid the body in floating and moving forward.

2. *Ryōwa-Noshi*, right form

Ryōwa-Noshi is the name given in the *Suifu Ryū* for this form of swimming though it goes under other names in other schools.

FORM: The body makes an angle of 30° with the surface of the water; the shoulder is in a straight line; and the hips are twisted slightly (either to the left or right).

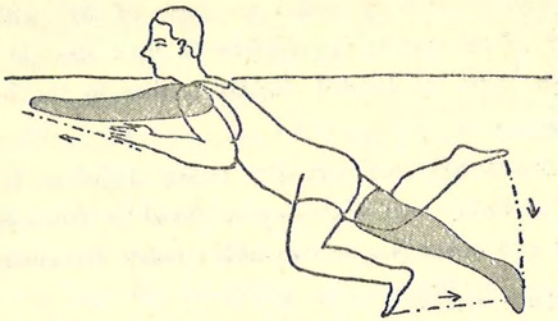
PREPARATION FOR STROKE (when twisting to the right): Put hands with fingers closed in front of the breast and about one or two inches below the surface.

FIRST MOTION:

While twisting to the right, the left leg is bent forward and in doing so it brushes the shin of the right leg. It is bent until the thigh is at right angle with the body while at the same time the thigh and lower leg are also at right angles and the instep is turned up. The right leg is bent from the knee and the toes are stretched out. The arms are stretched out partly downward and in a semi-circle from the starting position, pressing the water and when reaching the breadth of shoulder, snap the hands to the chest taking care that the elbows press the sides slightly.

SECOND MOTION:

Put strength in the toes, and as illustrated along the dotted line, stretch out the legs going back to the first position by snapping them together and holding the water between them. Stretch the hands out vigorously. At the same time swing the hips back from the side position. The eyes should always be to the front.



ATTENTION: When changing from the starting position to the first motion, it should be done smoothly without resisting the water and then continue on to the vigorous second motion without stopping. After completing the second motion rest until the body of the swimmer is fully stretched and the speed slows down and then go back to the starting position.

3. *Ryōwa-Noshi,* abridged form

This abridged form is used when in a hurry, or when waves are very high. Float on the water and turn the body slightly side ways, with the lower shoulder forward and the upper shoulder backwards. The head should be held high with the face looking forward. Twist the legs vigorously and move forward in a position resembling the side stroke. The arms makes a semi-circular stroke, the arm which is lower making a wide arc while the other makes a small one.

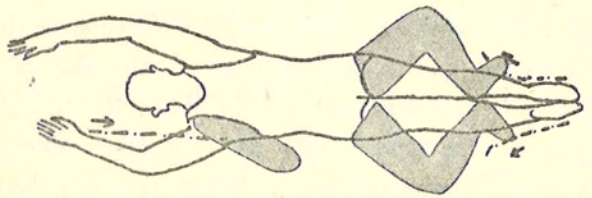
4. *Ohnukite,* with frog-kick

There are many kinds of *Nukite* in classic swimming, the purpose of which are all the same. These strokes are used in swimming against rapid current of a river; across an eddy or through billows keeping the object ahead always in view especially in times of danger. These strokes are very fast but very tiring so they cannot be used for any great length of time.

This *Ohnukite* with frog-kick being one of them, is also very tiring therefore one should practice it only after he has mastered the *frog-kick.*

FORM: Float on the chest and the position is the same as the frog-kick form. The angle of the body with the surface of the water is 30°.

FIRST MOTION:

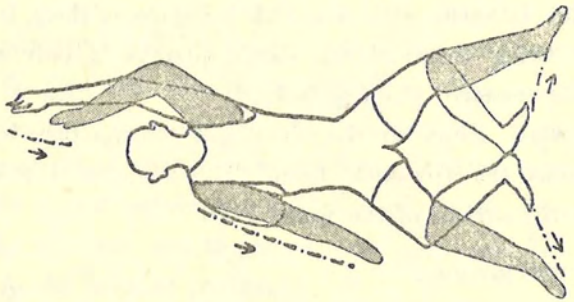


The first motion is shown in the above illustration by the dotted line. Stretch out the arms in front, turn the left hand downward and stroke with the palm. The right arm is used primarily to float the upper part of the body so it quietly presses the water several times.

The legs are in *third motion* position of the *frog-kick;* that is, bend the legs with soles of the feet together and then return to the starting position.

ATTENTION: The hands should be as free as possible and without much strength, with the fingers closed naturally. The legs are the same as that given under *attention* of *third motion* of *frog-kick.*

SECOND MOTION:

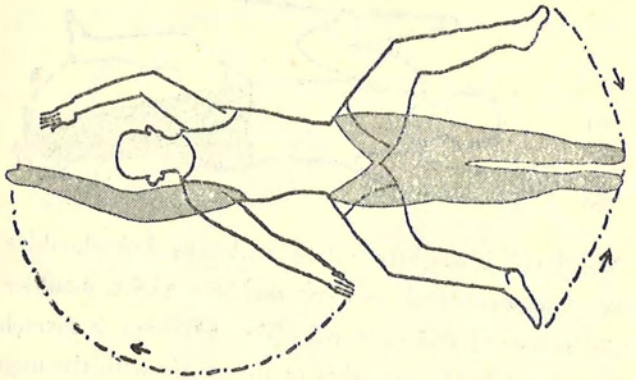


The left arm which was brought to the chest continues its movement and is stretched out to the side of the body. It is backward and a little above the body, the palm is slanting upward with the little finger above.

The right arm continues the first motion and the legs goes through the first motion of the frog-kick, that is, the thighs are wide apart with knees bent, so give a vigorous outward kick.

ATTENTION: The left arm movement should be done rapidly. The leg movements are that of the *first motion* of the *frog-kick.*

THIRD MOTION:



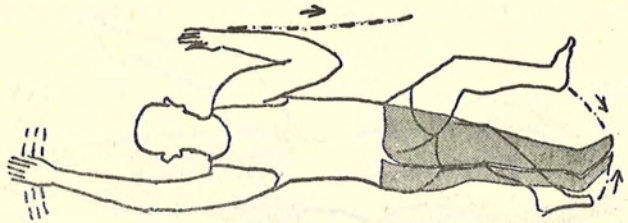
Pull out the left arm with the little finger first about two or three inches above the surface of the water and draw a wide arc. When the arm is in front put the hand into the water. The legs go through the *second motion* of the *frog-kick*; that is snap the legs together forcibly.

ATTENTION: Make the movements continuous when changing from the second to the third motion.

5. *Ohnukite* with aori-ashi

FORM: Just as in *Ryōwa-Noshi,* right form, the body should be as horizontal as possible, making an angle of about 30° with the surface of the water. Draw the chin in and submerge the body until the water comes to about the chin.

FIRST MOTION:

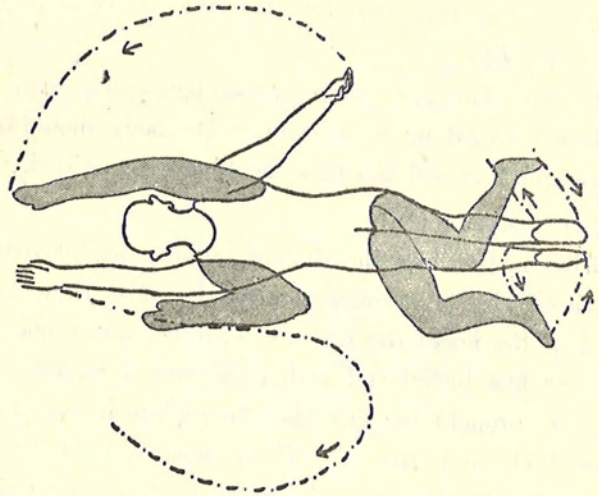


The body is slightly aslant with the left shoulder a little downward and forward and the right shoulder a little backward and upward. The left arm is stretched out in front in the direction of the course with the fingers one or two inches below the surface of the water.

In the leg motion, the right leg is made *Shin-Ashi* (the leg which is stretched forward) and the legs commence the circular movements.

The right arm strokes from the shoulder downward as shown by the dotted line in the above illustration, to keep the balance of the floating power. The legs continue their circular movements. When the legs return to the starting position, the right arm is pulled out of the water with the palm facing the left side. At this time, twist the body sufficiently so as to reduce the resistance of the water and move forward easily.

SECOND MOTION:



Bring the right arm forward and as it swings forward the legs begins a circular movement with the right leg underneath.

The left arm strokes from the shoulder downward and brought forward just as it was done with the right arm.

ATTENTION: The arms should be swung forward without bending the elbows; they should be brought in line of vision of the course before entering the water.

6. *Konukite,* right form

Konukite is the name for this style of swimming in the *Suifu Ryū.*

FORM: The position is almost horizontal, with the body submerged up to the chin. The body should be in a straight line and the hips should not be twisted.

FIRST MOTION:

First motion uses the shallow circular leg movements of the horizontal swimming methods. The right leg is bent at the knee; the legs are separated about one foot, four or five inches and makes the second motion. The legs are brought together then the leg which was forward goes back and the leg which was back is brought forward. At this time, the right hand which is about the breast is stroked along the side until it is about one foot, five or six inches and it is pulled out about one or two inches above the water.

The left arm which is stretched out in front with the palms down until it is at the breast.

SECOND MOTION:

The right hand which was pulled out of the water is brought forward and is put into the water about one foot to the right of the center.

THIRD MOTION:

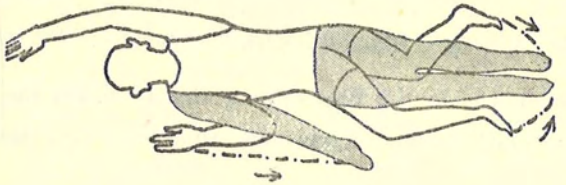
The left knee is bent and the distance between the two legs should be about one foot, four or five inches.

This motion is as described in the first motion except that the left leg is used.

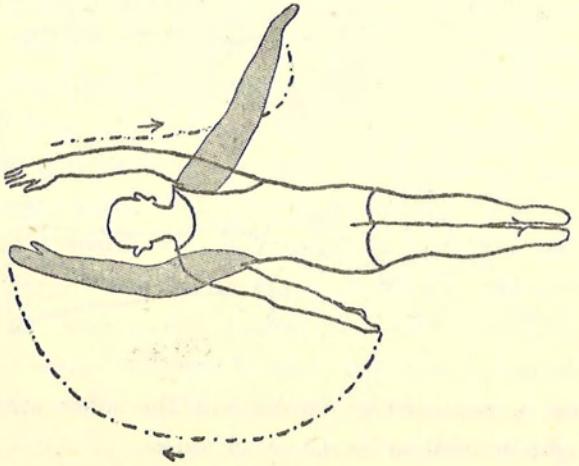
The left hand is stroked along the side and pulled out of the water, the motion being the same as that explained for the right hand in the first motion.

7. *Konukite,* abridged form

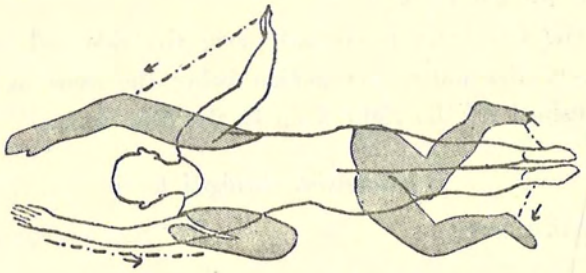
FIRST MOTION:



SECOND MOTION:

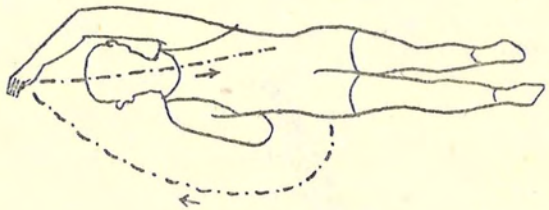


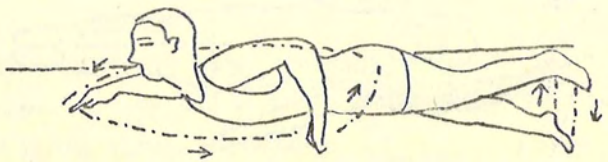
THIRD MOTION:



8. *Konukite,* with flutter kick

As shown in the illustrations, this is almost the same as *Ohnukite* except for one arm, that is to say, one arm





makes a semi-circular stroke and the other stretches straight in front as in the crawl stroke.

Ohtai Eiho

(Side Stroke Method)

There are many variation of *Ohtai Eiho* according to the schools of swimming. These differ as the topographical differences of the locality in which they developed. There are good parts as well as poor parts in these methods. Here, the writer will describe strokes which incorporate the good parts of these methods. These strokes cannot be used for all times but are comparatively good.

1. *Hitoe-Noshi*

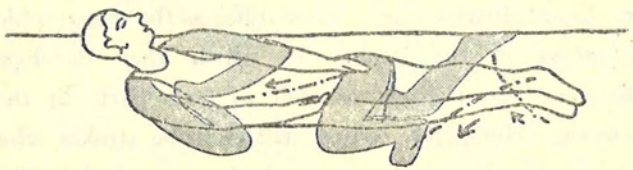
Practice the arm and leg movements on land before going into the water. The leg movement is *Aori-Ashi* (circular leg movement). Hold on to some object and float the body; twist the hips; stretch out both legs and practice the leg movement which will be described in detail later.

Lie on the side in a very shallow place and practice the arm motion.

PREPARATION FOR STROKE: Lie on the side so that the water covers the lower side of the face and the eyes, nose and mouth are just above the water. Turn the face up as much as possible with the chin touching the upper shoulder. The legs are stretched out together. The arm which is on the upper side is by the side but

the lower arm is placed in front of the thigh of the lower leg.

FIRST MOTION:



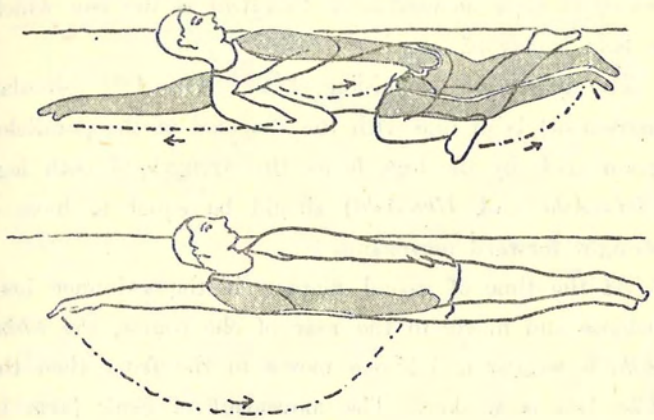
Draw in the legs bending the knees and rubbing the sole of the upper leg along the shin of the lower leg about half way and bending it forward. The lower leg from the knee down is bent backward but do not move the thigh.

The position of the upper leg is: the thigh makes a right angle with the body and at the same time the knee is bent to make a right angle. The toes are turned up as much as possible. The position of the lower leg is: the knee is bent so that the lower part of the leg makes a right angle with the thigh and the toes are stretched out as much as possible.

The arms are bent at the elbows with hands together and placed between the lower breast and the head.

ATTENTION: When making the arm movement, do it as close as possible to the body to prevent resistance of the water. The leg movements should be done quietly and smoothly.

SECOND MOTION:



Snap the legs together by pushing the water with the sole of the upper leg and the instep of the lower leg and return to the starting position. The stroke should start slowly but get faster and more vigorous as it continues to the snap.

Stretch out the arms with the hands together to about the face and the arm which is upper, strokes downward; the upper part of the arm is always at the side. The arm which is lower is stretched out with palms upward; and should be about two inches from the surface of the water. This arm is stroked in a semi-circle until it is back to the starting position.

ATTENTION: *Sente* is the arm which is stretched out forward, that is, the arm which is lower; *Ukete* is the

arm which is above the head. *Shin-Ashi* is the leg which is bent forward and *Uke-Ashi* is the one which is bent backward.

The power of propulsion of the *Aori-Ashi* (circular movement) is in line with the diagonal of the parallelogram made by the legs, hence the strength of both legs (*Shin-Ashi* and *Uke-Ashi*) should be equal to have a straight forward movement.

At the time of second motion, if the swimmer loses balance and moves to the rear of the course, the *Shin-Ashi* is weaker and if one moves to the front then the *Uke-Ashi* is weaker. The movement of *Sente* (arm in front) is also to some extent responsible for this deviation.

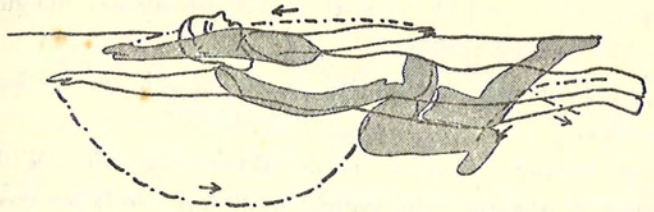
The position of *Sente* differs with each swimmer as his physique is different. If the *Sente* is too deep, the body will sink too much and again if it is too shallow his body will float too much, hence each swimmer must work out the depth best suited.

2. *Kata-Nukite-Hitoe-Noshi*

Kata-Nukite-Hitoe-Noshi is the most practical of the *Ohtai-Eihō*; has the power for great speed and is less tiring. This stroke is commonly known as *Kata-Nuki* (one over-arm).

FORM: The form is the same as that of *Hitoe-Noshi*.

FIRST MOTION:



The arm which is upper is placed on the surface of the water, ready to be pulled out. The arm which is lower is stretched out above the head.

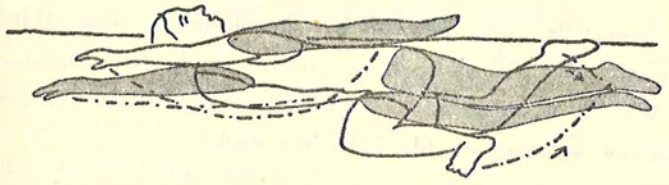
The legs are in position for the beginning of the *Aori-Ashi* (circular movement).

The arm which is pulled out skims the water and is brought forward. The arm which is lower strokes in a semi-circle and is brought to the front of the thigh.

The legs move as in the *first motion* of *Hitoe-Noshi*.

ATTENTION: Inhale during this first motion.

SECOND MOTION:



The upper arm which was brought forward passes the lower cheek and strokes back to the starting position with the palms facing up.

The lower arm which is at the thigh is slowly drawn up close to the body to offer least resistance and brought to the starting position.

Snap the legs together and stretch out as in the starting position.

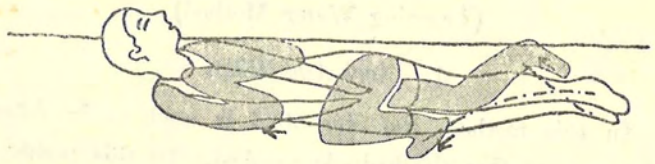
ATTENTION: During the second motion, exhale. With practice, one can swim sevreal miles easily so it is a good method for long distance. In the *Ohtai Eihō* (side stroke method) which is different from *Heitai Eihō* (horizontal swimming method), one is apt to mistake the direction as one is not looking forward. A swimmer knowing his habit of swerving either to the right or left of the course, should strive to correct it and swim in a straight course.

When swimming a long distance it is important to slow down the arm stroke. In the arm stroke for long and middle distances, stroke two-thirds of the arm movement vigorously and slow down the last third. This is because the body is propelled by the leg motion during the first two-thirds. Stroking the last third vigorously will have little effect. In a short distance swim, it is necessary to stroke vigorously all the way for it has an effect on the following stroke.

Morote-Noshi

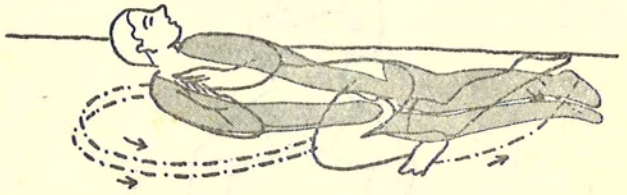
FORM: The position of the body is the same as in the *Hitoe-Noshi.*

FIRST MOTION:



The legs are drawn up for the first motion of *Aori-Ashi.* The arms are stretched downward and the hands are placed on the lap. They are drawn up along the body with the palms together. As they reach the breast the palms are turned outward with the thumbs together.

SECOND MOTION:



Stretch out the legs for the *second motion* of *Aori-Ashi.* The arms are stretched out in the direction of the course and as the body is propelled by the snapping of the legs, stroke the arms in a semi-circle and bring them back to the starting position.

Rittai Eiho

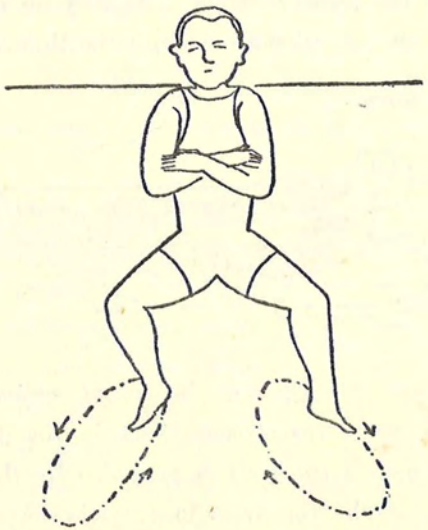
(Treading Water Method)

1. *Aori-Ashi Rittai*

In this method, the *Aori-Ashi* is used as in *Ohtai Eihō* except that the body is vertical. In this position, the body naturally shakes with the leg movement.

FORM: The upper part of the body is straight.

MOTIONS:



In the leg stroke of *Aori-Ashi* with the body vertical, the object is to beat the water downward. The first and second motions of the stroke are done continuously.

2. *Fumi-Ashi Rittai*

FORM: The body should be straight and knees slightly bent with the legs apart.

MOTION:

Move the right leg outward and downward in a circular motion. Turn the toes down and bring it back to the starting position. The left leg begins a similar motion while the right leg starts back to the original position.

ATTENTION: The leg movement is done alternately and the leg is pressed downward as it makes a circular movement. The two movements should not be separated.

The beginning of the stroke should be done vigorously and the finish, less strong and calmly.

Uki-Mi

(Floating Method)

Believing that the reader has an understanding of the strokes explained, the writer will go on to explain *Uki-Mi* (floating methods).

One who drowns is he who fears the water and in his confusion his strength fails; his breathing gets choked up; his lungs depleted of air causes him to sink; he drinks much water hence he goes under and disappears before rescue arrives.

A human body is a little heavier than fresh water

but with the lung full of air it becomes lighter and again it is lighter than salt water. Thus the body has floating power without the aid of arm and leg movements. If one floats on his back, his head will always be above water.

1. *Se-Ukimi*

Float on the back, expand the chest, spread the legs apart and bend the knees and elbows slightly. Both hands are placed by the upper part of the head with palms facing up.

The position of the body is: the face, breast and toes are above water.

In *Uki-Mi*, the object is to have a serene feeling, gazing up at the sky without any thought and try to forget that one is floating on water.

ATTENTION: If the legs starts to sink, stretch the arms upward above the head; if the head starts to sink, stretch the arms to the side slightly then one can keep the balance of the body.

2. *Tachi-Ukimi*

Stand straight in the water, letting the arms hang at the sides with the face turned up as much as possible. Relax the whole body. The face and upper part of the head is above water.

ATTENTION: In *Uki-Mi* do not breathe deeply. Take

short breaths so that there will be some air always left in the lungs.

3. *Fuse-Ukimi*

Float on the face, just the opposite from *Se-Ukimi*. The body is balanced by applying the *Se-Ukimi*. This floating method is the easiest but one cannot float longer than one breath for the face is in the water.

4. *Yoko-Ukimi*

Float on the side and keep the head from the neck up above the water. The *Sente* (the arm on the lower side) can be stretched out above the head or at the side. The rolling of the body is prevented by the shoulder and hips.

The Rise of Japanese Swimmers

By Ikkaku Matsuzawa

The victory of the Japanese Swimming Team in the races at the Tenth Olympic Games, Los Angeles, seems to have been unexpected by the Westerners. It is natural that they were surprised for only a very few remember that Yoshiyuki Tsuruta had won the 200 metres breast stroke in the Ninth Olympic Games, Amsterdam, and that Katsuo Takaishi and Takahiro Saitō had placed at the Paris Olympiad.

Even those who knew of the historical facts of Japanese swimming felt unexpectedly pleased that Japanese swimmers had made such good results with only so little experience in the past Olympic Games. What is the reason for this rapid development?

A system of swimming was already existing in Japan during the Sengoku Jidai[1] which preceded the Tokugawa Era. And in the Tokugawa period there developed a style unique to Japan, that of swimming as a military art.

1) *Sengoku Jidai* was the turbulent period of one hundred years in Japanese History which followed the loss of power of *Muromachi Shogunate* after eleven years of civil war, starting in 1467. This was a period of rivalry among the lords of the country and the weaker ones were subjugated. In 1573, *Oda-Nobunaga* finally succeeded in conquering the tottering Shogunate and created a military government. He was followed by *Toyotomi-Hideyoshi* who finally united all of Japan. The thirty years of comparative peace during the reign of these two men became to be known as the *Azuchi-Momoyama* period in which Japanese culture flourished. With the death of *Toyotomi-Hideyoshi*, *Tokugawa-Iyeyasu* usurped the power and in 1603 set up his Shogunate at Yedo (present Tokyo) which lasted until the *Restoration of Meiji* in 1867.

It was only after the Restoration of Meiji, that swimming as a sport was introduced into Japan and in the fifty years since that time, it has developed rapidly. But only some fifteen years have passed since the introduction of the modern race forms. Though the ancient forms could not be used directly for the new strokes, it has had an indirect influence.

Because there already existed an analytical study of swimming method, the adaption of the new strokes was made rapidly. Hence, in a very short time, there developed a racing technique individual to Japan.

Geographically too, Japan is so situated for the natural development of swimming therefore comparatively speaking, Japanese as a race enjoy it.

At present, swimming is made a part of the physical training of the Japanese children from their elementary school days and in most schools there are pools with modern equipments which can be used as a race course.

Nippon Suizyô Kyôgi Renmei or the Amateur Swimming Federation of Japan has under its control the governing bodies of the various localities and school teams. The N.S.R. cooperates closely with these bodies

in time of swimming meets. These are some of the more pertinent reasons for Japan's rise in the swimming circle.

A regrettable fact is that swimming clubs similar to those of other countries have not fully developed in Japan as yet, because of the relative short time since the introduction of modern sports. However, there are student groups as well as navy clubs. This accounts for the fact that there are not many outstanding Japanese swimmers aside from students.

Many foreigners were surprised at the youthfulness and smallness of the Japanese swimmers that they often queried about it. One day after the Tenth Olympiad was over, the writer was walking along a street in Los Angeles when a stranger asked, "Why were such young and small Japanese swimmers so strong?" This question was troubling for the writer thought it natural for young men to be stronger. The answer given was, "Look at the aeroplane! The scout-plane has a very small body but it can fly faster than the heavy bomber. And the newer, the faster." This seemed one of the good explanations for the victories of the young Japanese swimmers like Makino, Kitamura, Miyazaki, and Koike.

Racing Strokes

For reasons stated above, the racing forms developed very rapidly and with such strides that it soon became to be known as the Japanese Crawl. Though the writer

believes that there is no fundamental difference between the American Crawl and the Japanese Crawl, critics of the world have tried to make out that the use of this stroke was one of the reasons for the success of the Japanese team at the Los Angeles Olympic Games.

The writer as honorary head coach of the team did not insist upon the uniform recovery of the arm stroke so long as it was done effectively and did not affect the under water pull. This was the reason for some of the Japanese swimmers having conspicuous habits which the critics noticed.

The 1932 victory of the Japanese was probably due more to the better use of the American Crawl or the European racing strokes than the Americans or the Europeans themselves. Added to this, the Japanese swimmers were imbued with the national spirit and if there be any difference it was this fact.

But for the Japanese swimmers to adopt the foreign racing stroke in its entirety is disadvantageous. So in the crawl and back strokes, these swimmers endeavored to aid the pull of the arm stroke by the strong beating of the legs. Japanese have flexible ankles which enables them to have a strong beat to their kick without much effort. There seems to be no need to build up a characteristic Japanese stroke aside from building up each individual's trait.

In the breast stroke, the Japanese swimmers endeavored to create a strong propulsion by the arm and leg movement and at the same time to reduce the negative work which resulted in such smooth stroke.

Women's Swimming

As to swimming for women, Japanese girls are just as fond of the sport as the boys, but they were not permitted to swim for many years because the Japanese social customs differ so greatly from that of other countries. From the olden days, it has been considered that the women's place is in the home; this is true of all countries but more so in Japan. This idea still remains though modified. While girls are at school they are allowed to indulge in sports though not intensively for they are branded "flappers" if they do. But as soon as the girls leave school, their sports are dropped with their school uniform of middies and skirts, hence their talents cannot be fully developed. The writer believes that conditions in Japan will be ameliorated as the years go by, and consequently swimming for women will be improved.

Crawl Stroke

By Katsuo Takaishi

Before the Seventh Olympic Games, Brussels, swimmers in Japan competed in races clinging to the old existing styles of swimming peculiar to Japan. Since that time, however, the Japanese, realizing the importance and advantages of the crawl stroke and incorporating the various merits of the old Japanese styles into it, have made a very remarkable progress. At the Tenth Olympic Games, the Japanese won three free style championships, 100, 1500 metres and 800 metres relay gaining preëminence in the swimming races excepting the 400 metres. At present, Masanori Yusa holds the record of 200 metres in the long pool; that of 800 metres is now held by Shōzō Makino and 1000 metres by Hiroshi Negami. Thus the Japanese showed an overwhelming progress in the crawl stroke which led the world to believe that a new Japanese Crawl Stroke was developed.

In the present day, the crawl stroke is invariably used in the free style. As the name implies, free style means any stroke. But to date, the crawl being the fastest, is used and probably be used until such time as a faster stroke is developed.

Fundamental Movements

1. Practice of Body

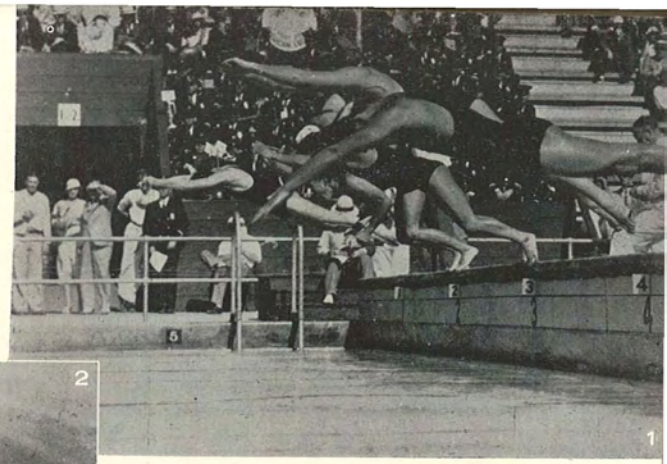
First of all extend the arms, palms downward, and the legs and ankles floating in a horizontal position. Do not stiffen the body but relax the muscles and float in a straight line. This posture, if compared with other styles, is very simple and natural but beginners seem to feel that it is not so. It is impossible, however, to master the crawl stroke if one does not understand this posture completely. This posture is primary and the learning of important movements should follow later.

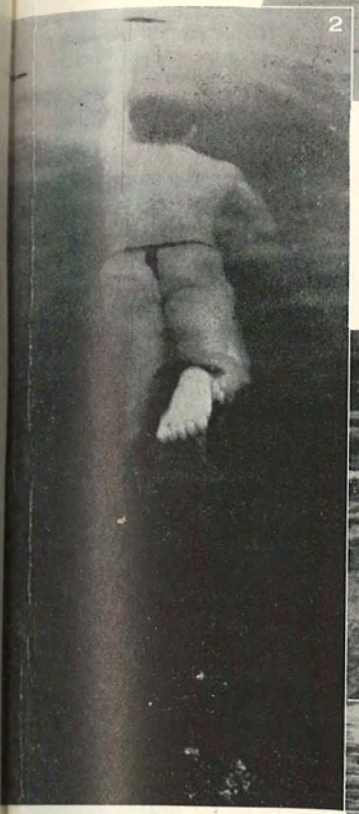
To prevent the body from stiffening is an indispensable condition not only for the crawl stroke but also for floating. Accordingly, if the body is stiff it will sink like a rock. Many swimmers confuse this stiffening of the body with the technique of strengthening certain muscles or parts of the body.

To swim speedily, it is no use to just idly move the arms and legs. Strength should be put in the arms in its downward pull and in the legs when it beats the water. Many beginners misunderstand this movement and are apt to stiffen their entire body, hence they cannot advance but begin to sink. The more they try to prevent their bodies from sinking the more tired they get, being spent by only swimming ten or twenty metres. From such an experience, many lose interest thinking the stroke too hard and difficult.

CRAWL STROKE

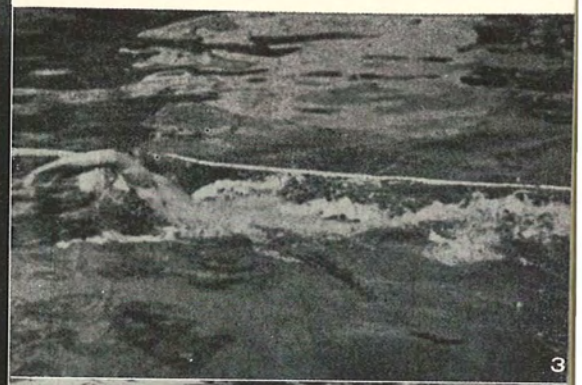
1. Start of Men's 100 Metres Free Style, Semi-Final at Los Angeles Olympic Games. Yasuji Miyazaki Is Nearest Camera, Who Placed First.

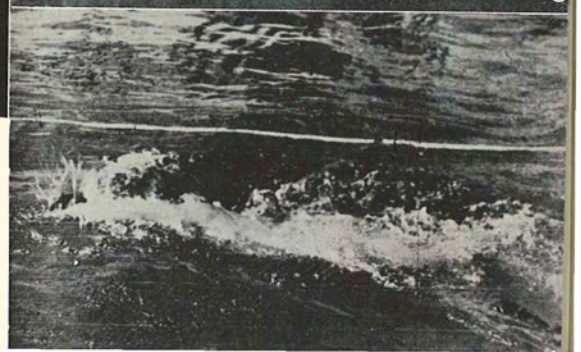




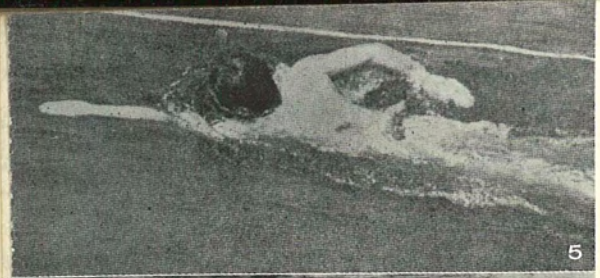
2. Position of Body at the Beginning of Crawl Stroke. Right Leg Starting Flutter Kick Beat and the Right Arm Commencing Stroke. (Form of Katsuo Takaishi.)

3. Left Arm at the Moment the Hand Meets the Water. (Form of Masanori Yusa.)



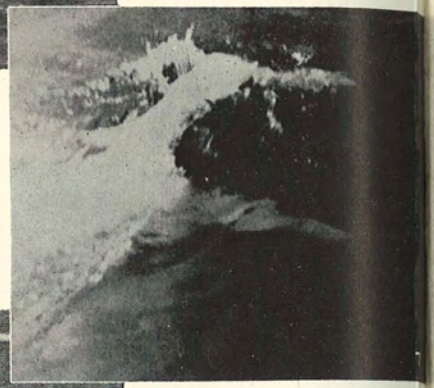


4. The Moment the Left Arm Entered the Water; the Right Arm Is Completing Pull Stroke. (Form of Shozo Makino.)



5. The Left Arm is Stretched Out While the Right Arm Is Finishing the Stroke. (Form of Masanori Yusa.)

6. Recovery of Right Arm and the Beginning of the Pulling Stroke of the Left Arm. (Form of Shozo Makino.)



7. The Left Arm Catching the Water. (Form of Yasutaro Sakagami.)

8. Breathing in Form of Shozo Makino.

9. Form of Hiroshi Negami in Race.

There may be some difficulty in practising this fundamental posture if it is tried without support. One may practice easily by holding the side of the pool or any other support. First, the leg movement should be practiced with arms outstretched in front.

2. Leg Movements

Leg movements used in the crawl stroke are called *Bata-ashi* in Japanese or "fluttering of legs" if translated. Extend the legs with the big toes in close proximity and heels apart three or four inches. Then begin to move them up and down from the hips. When kicking upward do so feeling that the water which is on the calves and toes is raised. It is natural that by the resistance or pressure of the water, the legs are slightly bent at the knees. Be careful, however, not to bend them too much and to make them appear above the water. In the downward beat one should do so as a fish rebounds when it jumps out of the water and also with a feeling that the water is being pushed downward with the calves and toes. In these leg movements the most effective part against the water is the insteps. When legs are moved upward, insteps must be in a straight line with the shin; when moved downward, they beat the water strongly, with the ankles relaxed so as to move up and down very easily. In these alternate movements of both legs, be careful not to touch the big toes. However, do not set the ankles apart as much as

two or three inches. In short, make the legs approach as close as possible without touching them.

Many beginners swim with their knees bent and are apt to struggle in bending them, but never try to straighten them. Among them some are always bending their legs in both upward and downward movements but this is in vain for such movements are ineffective for propelling the body. So if one tries not to bend his knees, his legs are kept in the correct and proper position. It is rather difficult, however, for one to notice whether the knees are bent but a simple method of finding out is: when the ripples started by the flutter kick is like those of a fountain, the legs are in proper position but when the water sprays the knees are bent.

In repeating these movements properly, legs push off the water backward and upward when they are lifted and backward and downward when they are lowered. Moreover, when the legs come together they squeeze the water out backward. The body is propelled when these three movements are properly combined. Legs are raised to the surface of the water by the result of these movements and by repeating the flutter kick with the face float, the body is propelled by each beat. At the beginning, if one does not have a support, this leg movement cannot be practiced freely, so hold on to a ball or the overflow of a pool. When strength is added to this flutter kick, the forward movement of the body is

increased and as one becomes accustomed to these movements he can breathe by lifting the face above the water without rolling the body. In the beginning, when changing from one leg beat to the other, the ankles or muscles of calves fail to support the movement, so the swimming is irregular but with proper training this defect will be corrected. When the flutter kick becomes strong enough, one can float the body even with the face lifted above the water and at the same time he can gain a comfortable speed without the aid of the arms.

3. Arm Movements

After the leg movements are fairly perfected, learn the arm movements. While practicing the leg movement, try dog-paddling or try to catch the water alternately with the two hands just in front of the breast. This movement will prevent one from sinking even if the leg movements are very slow and weak. Enlarge this arm movement and by taking an arm out of the water after it finishes its stroke and bringing it forward, it will be something like the crawl stroke.

First, close the fingers lightly and cup the palms being careful not to let the water pass through the fingers when making a stroke. Some persons swim with their fingers unconsciously apart, but try to avoid such a bad habit from the beginning, because it is very hard to correct it later however often one may be advised by their instructors. Extend an arm forward with the

palm cupped and bent at the wrist. Move it downward pressing the water. When the hand comes to a position suitable for a stroke, then begin the stroke movement holding the water with the palm and pushing it backward. If a stroke is made with the arm too extended, it is compelled to move in an arc with the shoulder as the center. This movement, however, is not effective excepting only when the arm passes the deepest place from the surface. Palms should always be kept faced in the direction which it strokes. The arm should move parallel to the body line from the starting of the pull stroke. It is necessary to move the palms in a fixed depth and line, for this purpose, one should bend the elbow outward during the first part of the arm movement then extend it. As the stroke movement continue, straighten the wrist so when it comes to the side of the body, it is in line with the lower arm and at right angles with the surface of the water.

When a palm comes near the side of the body, catching the water as explained above, drop the shoulder of the opposite side a little and begin to press the water. While that hand finishes stroking and comes to the side of the thigh, and the opposite hand starts to catch, the elbow of the first arm begins to appear above the water. When the second arm catches the water and begins the stroke movement, the first arm is out of the water and is thrust forward again. While the stroke movement

is carried on by the second arm, the first one goes back to the catching position. These movements must be done alternately by the two arms.

Usually the legs beat the water six times in turn through one complete cycle of the arms, so this is called *Six Beat Crawl Stroke*. In the beginning, while leg movements are not effective, one may feel it difficult to carry the arms forward. But this may be done very smoothly by rolling the body. Moreover, unless the arm is thrust forward as soon as it finishes the stroke, the body will sink and the face cannot be lifted. By repeating the movements again and again, sometimes practicing the arm movements with the face in the water and stopping awhile when out of breath, then one will gradually understand the relation between the arm and leg movements. After this, one should learn breathing.

4. Breathing

When a hand is thrust forward and catches the water and the other hand finishes the stroke movement, slightly incline the upper part of the body to the side of the hand thrust forward and turn the face to the opposite side supporting oneself in the water with the forward arm, then the mouth will be above the water. While these movements are being carried out, one must exhale little by little, so as to inhale again at the moment when the mouth is brought above the surface of the water. Take a breath with the mouth wide opened and immediately

turn the face and body back to the original position. It is necessary to decide the breathing side and whichever is chosen a breath should always be taken on that fixed side.

In the beginning, the body is apt to sink owing to the incompleteness of movements. One will find it difficult to lift the mouth above the surface of the water and will soon be out of breath. If one attempts to breathe in a wrong position, the form is destroyed. Those who are soon out of breath should try to roll their bodies and turn their faces up, so as to breathe easily without destroying their forms. If the rolling to the opposite side of the breathing side is strong the face need not be lifted above the water because one does not breath. One should roll the head slightly in order to maintain the rhythm of the movement. Much care should be taken in this rolling or the swimming will become like lame walking.

An outline of the crawl stroke can be learned by practicing as previously described. It is quite necessary, however, to study the technique of this stroke in detail after learning the general outline, and one should work out his own crawl stroke which suits his physique and become accustomed to it by practice. Moreover, it is necessary to strengthen the particular muscles used to increase the speed.

On Practice of Crawl Stroke

1. Catching

When an arm finishes the stroke movement it is thrust forward and put in the water to a suitable depth, it catches the water very strongly. This movement is called catching. Swimming depends much upon skilful catching as it is the preliminary step to the stroke movement, the result of which is shown by the effect on speed. The form of an arm when it goes into the water varies according to the swimmer but when it comes to the point of catching, the form should be almost the same. It may be classified into two forms: one may put his arms into the water over-reaching, bending or not bending his elbows; while the other may let his arm into the water outside the shoulder and in this case there may be two positions of the elbows as stated before. This is only a general classification and there may be many different types of arm positions.

If the arm over-reaches when going into the water, catching should be done after bringing it in line with the shoulder under the water. Suppose one begins a stroke without changing the position of the hand, then he may be unable to catch the water parallel with the body line unless the hand is in line with the opposite thigh. It is quite impossible, however, to swim in such a ridiculous posture and even if it were possible, it would have no effect on increasing the speed. Be careful that

when a hand finishes the stroke movement it is placed near the thigh on the same side. The more the hand over-reaches, the larger becomes the angle made by it against the body line while catching. Consequently it pushes out the water inside the shoulder without giving any effect and the body is apt to advance turning to the opposite of the stroke side. On the contrary, if one puts the hand into the water too far outside the shoulder, a similar result will follow.

There are many persons who put their arms into the water bending them so extremely that their palms are placed by the opposite shoulder or near it. Among them, some push the water to the wrong direction trying to straighten the elbow which is unnecessarily bent, so it is impossible for them to swim speedily. Then, in what form and position should the hand be put into the water? It would have been more advisable to explain this under *Arm movements* since it bears a close relation to that subject but to explain it here briefly.

Put the hands into the water at the position to which the arm is thrust forward parallel with the body line. Therefore to put the hands into the water with the arms extended forward is a suitable form for catching. But if one catches the water with the arms extended there is a tendency for the stroke to be very large and very slow. Moreover, if they are extended too much the pressure from the water becomes very great. This

pressure can be resisted by those who have strong muscles, but as there are only a very few, with such muscles, it is difficult for most swimmers to catch the water quickly and the speed of swimming is greatly reduced. Therefore the best way is to put the hand into the water on the line from the shoulder a little before it is completely extended, then stretch the arm vigorously downward and forward.

It is not always bad to put the hand in the water inside or outside the shoulder if it is brought to the right position under the water, but much energy will be wasted in doing so. One must be careful to save energy as much as possible excepting for the purpose of increasing the speed.

It is natural that the depth of catching may somewhat differ according to the physique or strength of a swimmer. But this difference is very little, so if between two swimmers the difference is too great, catching of either of them may be done in a wrong way. Some swimmers begin the movement which is like catching as soon as they dip their hands into the water. In the crawl stroke as mentioned already, pulling or catching movements of the hand should be done in a horizontal direction at a considerable depth from the surface, otherwise the movement may be quite ineffective. So if the position of catching is too near the surface, it becomes impossible to commence a stroke horizontally from that point and for

this reason a hand must be placed in a considerable depth. The power of a hand acting against the water at this moment is to start the pull stroke and to push the water downward, namely a hand pushes the water as it strokes. Pushing the water downward is one of the essential points of the crawl stroke and it should never be ignored. But as this is a question of degree, if one goes beyond the bounds of moderation, there will be many abuses as in the saying "Too much spoileth, too little is nothing."

If one begins to catch at the moment the hand dips into the water, the arm movement will give no effect in floating the body. Unless the leg movements are strong enough to float the body, one will receive too much resistance from the water and so reduce the speed.

In short, the most suitable depth for catching is to place the wrist about five inches from the surface of the water and as the palm is bent downward, the fingers about seven or eight inches. The perfect way would be to let the arm, which finished the stroke movement, into the water very quickly while it is still bent and straighten it swiftly in the water and at the same time getting ready to commence the stroke when it reaches the position suitable for catching.

2. Movement of Pressing the Water and its Degree

An arm commences the stroke movement as soon as it finishes catching and if one loses no time at this moment

in making a full stroke with the arm, this movement is effective in propelling the body like an oar of a boat. One should bear in mind, however, that a boat can easily keep its balance on the water while a human body is very unstable, being on the water just like a floating stick and is liable to sink. The strength of an arm should not be used to just scratch the water, but while the arm is before the head it should be used to press the water so as to float the body as much as possible. It is also important to utilize the power produced by the beating of the legs and by the final snap of the stroke movement of the other arm. Moreover, the pressing movement of an arm is very effective in balancing the body. However strongly one may stroke or beat the water, it is quite useless if the body is unstable. Then, how long shall one continue the pressing movement? Continue it until the point where the body will be balanced by the other arm even if one stops pressing with the first arm. Consequently the arm stroke is not a full alternate movement as the stroke should not be done so that one arm is out of the water when the other catches, but one arm should be stroking while the other dips into the water. During the first half of the arm movement, after an arm catches the water and until it is carried under the shoulder line, it must be used for pushing the water backward taking care not to lose balance of the body and also for pressing the water downward. This movement to

press down the water should be strong in the first part of the stroke, but after which it should only stabilize the body.

It has been already mentioned above that when an arm is thrust forward one may let it into the water after extending it, while the other may do so bending it slightly. But in either case it is straightened once under the water and then it begins to press. At this moment the other arm is about to finish its last snap and the rolling of the body is on the side of the outstretched arm and the shoulder of this side drops a little. At this time one must press the water with the extended arm and be careful not to diminish the speed that was made by the snap of the other arm. The final snap of an arm increases the speed, which should be sustained by the extended arm, as it supports the upper part of the body and prevents it from rolling. However strongly a snap may be done, it will be of no use if the upper part of the body is unstable. Snapping and pressing are just like two wheels of a car, because one is dependent upon the other.

There are a few who have the opinion that the pressing movement of an arm is of no use or even detrimental for increasing the speed, but the writer believes that this very movement decides whether one is a good swimmer or not. A swimmer with strong arms may easily stroke, but it is not always he who will be an excellent swimmer

in a short time. A key to a good swimmer is to learn how to press the water skilfully. It is not advisable to press the water too strongly, for it is liable to cause the rolling of the upper part of the body suddenly. For this reason, it is better to let the arm into the water before it is completely extended. If one extends the arm above and lets it into the water, the time for pressing will be too long and the muscles of the arm will soon be tired without producing any effect, and accordingly the speed will be greatly reduced. A miserable form of swimming will result from the above method, if one has undeveloped muscles of the arms. As stated very often, the first aim of the movement of pressing the water is to float the body. The power for floating is produced mainly by the hands and supported by the shoulders. Stronger the power for pressing the water to float the body, the more the shoulders' supporting power will be increased.

Then it is a question of how strongly the water should be pressed. As the degree of pressing is closely related to the extent of the body rolling and is very complicated, it is difficult to determine its limit. Pressing the water is the most essential movement of the crawl stroke, but if it is done beyond the bounds of moderation it will be detrimental. In short, it is desirable to press the water within the minimum degree that is enough to float and stabilize the body properly, so as to keep the speed which

is produced by the final snapping of the opposite arm. Consequently it is better to try to lower the hand as fast as possible so as to press the water in the proper way, than to press strongly by lowering the hand slowly to the catching point. There are some swimmers who, after catching does not commence stroking but halt their hand for a while pressing the water at a certain point without movement but this is quite unnecessary. Be careful not to commence a stroke without a pressing movement after catching the water. If one commences the stroke with a feeling of pressing the water downward, it will be better.

3. Rolling and Its Limit

At the moment when an arm has been thrust forward and catches the water, the shoulder of this side drops a little, and the other arm makes its finishing snap. In order to carry an arm forward after finishing the stroke movement, it must be lifted above the surface of the water and for this reason the shoulder should be slightly lifted and moved back. As this movement is always carried on alternately by both arms, shoulders of both sides draw ellipses while swimming, and one of them should be lifted when the other is dropped. Accordingly the upper part of the body should necessarily roll to both sides, but the position of the body line does not change. This movement is called "rolling" of the body and it has a very close relation with the crawl stroke. With

only this natural rolling one may have difficulty in breathing even with the head turned sideways, unless the body rises to the surface as a result of the arms and legs movements. Consequently if one wants to take a breath easily, turn the body to the right or left in accordance with the choice made. Then by the technique of this movement, rolling of the body is increased. There are two rollings, one which is caused necessarily and naturally by the pushing movement of an arm, while the other is an artificial rolling; but while swimming the crawl stroke, these two rollings should be considered as one. If one swims without rolling the body he must swim in a very unnatural position, such as pushing up the head above the surface of the water or floating the upper part of the body by sinking the legs deeply in order to breathe easily. If there is some part of the movement which is forced, it will cause a very unnatural form of swimming.

In the crawl stroke, one should use uniformly and effectively all parts of the body instead of forcing parts of muscles. If one tries to stroke without rolling the body, the power required is produced only by the muscles of the arms and shoulders, but when the power of the twisting or rolling of the body is added to that of the arms, it will be greatly increased. But one must understand that there is a limit even for rolling as too much will destroy the form of the body or will slow down the stroke.

Rolling of the body is necessary in this style of swimming and the power produced by it greatly strengthens the stroke when it is combined with the arm movements. This strength is increased according to the degree of rolling, consequently it is natural that the more one rolls the body, the larger the arm movement becomes, hence the larger the movement the slower the tempo of the stroke.

The best method of speed swimming in an fixed distance is to swim with the largest and strongest stroke and with as high a tempo as possible, that is, as high a tempo as for a small stroke. So if the tempo is the same, the larger the stroke the faster the speed. But it is difficult for a swimmer of limited power and strength, to enlarge his stroke without dropping his tempo. No matter how high his tempo may be, the speed will not be good if the stroke movements are weak and ineffective and in the same way, it may be said that even if his rolling is large and his stroke large and strong, he cannot swim speedily if his tempo is slow.

Thus, we must consider the limit of rolling. In considering this, it is important to decide whether rolling suits a swimmer or not for on this decision rests whether he will succeed. But the limit cannot be decided uniformly for every person, so one must choose a suitable way to meet the various conditions such as the development of the muscles of arms and beating of legs. It is

very difficult to find the limit of rolling which is most suitable for themselves. The smallest rolling is caused naturally by the change in the position of the shoulders. One must avoid letting the arms lie idle trying to get a large roll of the body. Stroke movements should be done, regardless of their length until the arm reaches near the thigh. Moreover, the movements of a stroke after an arm catches the water last only a moment. Accordingly if one rolls the body too much, he is compelled to let the arm stop awhile, pressing the water, before it commences the catching movement. By this rolling, the power of the arms is never increased, but on the contrary, they are compelled to waste power for the purpose of rolling the body. In short, the maximum of rolling is when the power gained by that rolling is applied to the arm movement and each arm carries on its stroke without wasting time and energy.

If it is a secret method of speed swimming to swim with the largest and strongest strokes and at the highest tempo, the ideal would be for one with great strength to swim a certain distance with very strong strokes of the arms without any rolling of the body, for rolling drops the tempo. It is impossible, however, for anyone but a born swimmer to exercise the arms and legs so strongly, without feeling a difficulty in breathing.

When learning to apply the power gained by the rolling to the stroke movement, one will find that in

each stroke he can catch the water very easily and smoothly, but he must avoid enlarging the stroke movement until he is accustomed to it. When the arms become strong enough to catch the water with little rolling, one must change the form of swimming in order to make that rolling as little as possible.

The limit of proper rolling should be decided according to the various conditions and moreover it is restricted by the beating of legs. Generally speaking, the rolling of a body is little in a swimmer whose beating is regular and rhythmic but it is advisable for swimmers who beat the water irregularly, sometimes hard and sometimes weakly, to enlarge the rolling of the body. There is a very close relation between this irregular beating of the legs and the rolling of the body. Too much rolling will cause irregular beating and, on the contrary, if the beating is irregular one cannot increase the speed without more or less enlarging the rolling. Excepting a few very peculiar cases, one must try to increase the tempo of swimming with as little rolling as possible if one has strong arms. And if the arms are not so strong, it would be better to swim with rolling which is enough to make up for the want of strength in the arms.

4. Pressing the Water and Rolling

When an arm is thrust forward and let into the water, the shoulder of the same side moves forward, or in other words the rolling movement begins to take place from

the shoulder. After the arm is completely straightened and the rolling is at its height, then the opposite shoulder comes up. Considering these movements, pressing of the water may be divided into two classes; one, when an arm is thrust forward and the other, when the shoulder comes back to its former position. Although it is not easy to make a definite distinction between them, a swimmer can clearly make out the difference of the change in pressing. At the moment when the rolling is at its full swing or in other words, when an arm is completely straightened, the shoulder is carried forward, and the other arm just finishes its last snap. If one takes much time in this movement, the form will become too stretched. It is quite easy to do so and the movement of arms in that case is very much like that of the Japanese trudgen stroke.

When beginning the second pressing movement and when the change from the first to the second pressing movement is done very smoothly, one can increase the tempo and reduce the rolling of the body.

The most difficult technique of this stroke is in the second pressing movement. One must pull the forearm by the shoulder and press the water with the hand until the other arm begins to press the water after which, commence the stroke movement. As this second pressing movement is done while the other arm is carried forward above the water, it is liable to destroy the form of

swimming. If the second pressing movement is too hard, the upper part of the body will be raised and on the contrary if it is too weak the upper part of the body will sink. So it is better to control it by being careful not to stop the sliding of the body. It is more understandable to call it "the supporting movement" than to name it "the pressing." One may think that this movement is done only by the hand and wrist, but in the crawl stroke every part of the arm must press the water and even the shoulder helps this movement, so it is really "the supporting movement." Suppose the body is a boat, then both arms supporting the body against the water may be considered the bow of the boat. The way to study the technique of this second pressing movement is to learn the position of the upper part of the body against the water and to find the easiest position to propel it.

As the rolling of the body is almost unavoidable, one should notice that the relation between arms and body is not so simple. It was already explained that an arm should always be extended from the shoulder line parallel with the spinal cord when the hand enters the water or when it catches. In this case, if the body lies in a horizontal position, an arm will make a right angle with the shoulder line. But as the shoulder obliques when the body rolls, the angle made by each arm with the shoulder line will naturally be greater than a right angle.

When an arm is extended forward, the shoulder of this side advances a little and at the same time the other shoulder goes back. In such a case when the shoulder line is oblique with reference to the backbone, the wrist would over-reach the head line if the arm is kept at right angles with the shoulder line. But the position of each arm should never be changed by the rolling. Even at the greatest rolling, the line along which an arm continues the stroke movement must always be parallel with the backbone. However, there are swimmers who studied this stroke considerably but who over-reach their arms too far being confused by the rolling although they believe they are extending them parallel with the backbone. Even if they are advised by others to correct it, they cannot notice their own illusion caused by the change in the position of the shoulder. So when one extends the arm while rolling the body, extend it rather outwardly, then it will be placed in the proper position.

5. Direction of Arms Against the Body

If, after catching, the course of the arm stroke is outward or inward, the body will go to the wrong direction. When each stroke hand is pulled along a straight line, the course will be straight but in case the course is changed by each stroke, the arms will tire faster. Accordingly arms must be pulled from the catching point always parallel with the backbone. Because the catching

should be done along a line at right angle with the shoulder line, the stroke position of the arm should be clear without any more description. The real catching should be done a little inside the line from the shoulder parallel to the backbone.

It is natural to try to avoid the pain which is caused by resisting the pressure of the water. This pain can be decreased to some degree, if one bends his arms which resist the pressure more than other parts of the body. For this reason a swimmer is apt to bend the arms more and more inwardly, but the speed is greatly reduced although he may feel relief in his arm movements. Consequently, one must try to catch the water just in front of the shoulder. Strictly speaking, the course of the hand in the stroke movement lies a little inside the shoulder, and this movement is properly done if one pulls the hand from about the breast as if dashing it against the middle of the thigh. If one's arms are very strong, the stroke movement will be straight and with great strength, but if they are not, the course of the hands will be zig-zag.

Many swimmers, except the owners of strong arms, are liable to reduce the speed of stroke movements when the hand comes diagonally down in front of the face or take the palm out of the water a little so as to soften the resistance of the water and to continue the movement after returning it to the former place. One can hardly

expect speed, if they cling to such a movement. This is due to the weakness of their arms and it is rather impossible to correct it in a short time although this form may be defective. If one tries to correct it all at once, there is fear that the balance of the body will be destroyed. So the swimmer with weak arms should try at first to pull his arms as straight as possible, and to strengthen them gradually in order to make the proper stroke movement.

As no one has solved the question of what part of the body is most effective in propelling it definitely, though it has been discussed much, one can see that the study is not an easy one. The difficulty lies in the fact that the form of swimming varies so much that one cannot give an all inclusive answer.

The most important point is to put strength uniformly in all parts of the arm in every movement. The reason why the latter part of the stroke movement has much effect on increasing the speed is that, in the latter movement an arm need not press the water which requires much energy. Moreover, in the latter part, the body is raised by the result of the rolling and is placed in a position in which one can strongly push down the water without much effort. In this latter part, namely, when the snapping is done, the other arm catches the water and the power required for catching is transferred reactionally to snapping which makes it easy for one to

have a strong pull.

If the body is raised and one can take a breath with ease even though there is no rolling of the body, then rolling will not be necessary since it reduces the tempo. For such a person, it is more effective to swim with the motto "tempo first," because the limit of his stroke movement will naturally become narrow and the center of his stroke will be moved forward. Even in this case the natural rolling is unavoidable, "no rolling" meaning that there is no artificial rolling.

As explained above, the latter part of the stroke movement is very important. But some swimmers sometimes forget this important point and take their arms out before going into this part. This cannot be called a proper and complete stroke movement.

6. Snap

The latter part of the stroke movement is called "finish." When an arm takes this finishing movement, the other arm catches the water at the point to which it is thrust forward pressing the water downward and backward. After it moves about one and a half feet or so, it presses the water more strongly, accordingly the body is raised. To press the water and raise the body is for the purpose of sliding the body smoothly and one must catch the water strongly at the moment when the body is raised so that one may increase the speed, because it is the power of the finishing movement of the arms

which actually increases the speed. Consequently the finishing movement should necessarily be done very quickly and with strength. So it may be more expressive to call this speedy and momentary movement "last snap" than to call it "finish."

The snap is quite indispensable to the crawl stroke and, as its name shows, it must be done at the moment just before an arm comes out of the surface of the water, but if one makes the last snap after the arm appears above the water, it is too late and of no meaning. However, beginners are liable to misunderstand this movement and let their arms spring up out of the water with a snap. But this is not the snap.

The snap is a part of the stroke movement, and it should be made under the water so that one may put the finishing touch to the movement. It is quite useless to continue it or to make it after the arm clears the water. If one lets out the hand with a snap, the body will roll too much. When a hand finishes its snap, it should be placed one or two inches under the thigh and then it must be taken out of the water very smoothly. At this time the hips will be inclined a little by the rolling of the body, and one will be able to bring the arm which should be relaxed, above the surface of the water without knocking it against the thigh. But this movement must not be done so rapidly as to loose the balance of the body because the swimming form will

be destroyed and the body will be tossed.

Moreover, if one makes the snap discordantly, the rhythm of swimming will be disturbed and the catching arm will be affected badly that one cannot press the water effectively. The ideal way of snapping is to put strength in the hand and do it speedily, then relax and bring it smoothly above the water.

7. How to Bring the Arms Above the Water

When one finishes the final snap, the arm must be brought forward in order to commence the next stroke movement. One may imagine that it is very easy to do so because, above the water, an arm has nothing to do with the stroke movement. It may be true, but as a bad form of the arm when it is carried forward sometimes destroys the swimming itself, it must not be neglected.

While an arm is above the surface of the water, it is of no use for increasing the speed. At this time one must see that the arm is relaxed and that no strength is used except for raising the elbow by the use of the muscles of the shoulder.

The form of the arm at this time varies in every person. But the best form is this: lift up the elbow after an arm finishes the stroke movement and take it out of the water as if pulling the hand with the elbow. Carry it forward drawing a circle with the shoulder as the center and extend the arm forward and straighten

the elbow when it is parallel with the body line. If one takes this method, the hand from the point of catching traces a parallel line with the central line of the body. Even though the hand is let into the water befoer the elbow is straightened, one can bring it to the proper position by straightening the elbow in the water. Even the highest tempo cannot affect this position.

There are many swimmers whose arm movement makes a large circle, without bending the elbow. However, this was the form of swimmers before the study of the crawl stroke. In those days, such swimmer was admired, being praised that his arms go round like a mill. In the present day such forms are relics of the days when the technique was still immature.

The defects of this form, if pointed out in detail, would be limitless. Therefore the writer will mention a few outstanding points.

First, in this form the position of the hand as it enters the water cannot be set; sometimes it enters a little too soon, hence outside the shoulder, other times too far inside. Even when one is careful of the position of the hand in swimming slowly it is destroyed when the speed is increased.

Most swimmers are apt to put their hands too far inside and in these cases, as each hand alternately enters the water with full swing, the upper part of the body

rolls at each stroke, and accordingly the lower part of the body swings to the opposite direction making a snake-like "S" while swimming. Consequently the direction becomes zig-zag and the form becomes very bad.

If one of the arms is brought forward in the proper manner and the other wrong, the body turns to the opposite direction from the wrong arm; for example, if the left hand is carried in the wrong way, the body will advance turning to the right at every stroke.

If the arm is brought forward without bending, the rolling of the body is increased and the other arm which, at the time, is pressing the water or carrying on the stroke movement will receive too much pressure and there is danger of the depth of catching being deepened.

8. Breathing

To breathe, the head should be relaxed and held high and the chin should not be drawn in so that it is always in the water. While swimming, if the face is turned to one side, it is natural and easy to stray from the right course. In that case when one tries to swim in a straight course, the swimming form may become peculiar. The best position for the head is to keep it relaxed and the face turned towards the front with the eyes on a point in front of and below the direction to which one is swimming, but as it is unavoidable to take a breath, one must turn the face to one side at

each breathing. When doing so one must press the water very carefully.

So study the position of the body against the water and learn how to prevent it from straying from the right course even though it may roll in order to take a breath. If one turns the face too much and take a long time in doing so, it will have a bad effect on speed. So it may be said that breathing is a rival of speed. In fact it is according to the method of breathing, that some can swim very well and others cannot. Then one must face the question, "when shall we breathe?"

Breathing is done at the moment the rolling on the breathing side is at its height. When the arm of the breathing side is carried near the side of the body, gradually begin to turn up the face sideways and finish breathing when the arm makes its last snap because at that time the rolling of the body is at its full swing. Then the face must be turned back to its former position as the arm is carried forward. Be careful to take a breath quickly and with the least motion so as to avoid the rolling of the body. When the speed is increased, the upper part of the body is somewhat raised so that one can take a breath without turning the face very much.

The mouth must be above the surface of the water for as short a time as possible. One must not inhale slowly but take in as much as possible in that short

time. Then, hold the air and exhale little by little until the mouth appears again above the water. Exhale completely when the mouth is completely out of the water. The form of breathing is very important in influencing the rhythm of swimming. Many swimmers have improved after correcting their bad breathing forms. In short, the importance of breathing should be realized and mastered by continuous practice.

9. How to Move Legs

As already stated in the third section, legs beat the water six times during one complete arm cycle. It is a misunderstanding, however, to think that beating of the legs are carried on only by the ankles. Beating must be done by all parts of the legs, from the hips to the ankles; moreover, even the muscles of the abdominal region should be used to aid in putting strength in all parts of the legs. If there is no tension of the abdominal muscles, one cannot expect an uniform beating by the whole leg and the body will be bent at the hips.

When beating the water, the very thin flesh of the shin, the muscles on the surface of the thigh and the buttocks will become tired much more than other parts of the leg. This fact shows that the strength is being put in the whole leg. One may hardly find a person whose beating is repeated in a fixed time. It is unavoidable that the leg movements will become somewhat irregular being influenced by the trembling of the body

which is due to the breathing, catching, finishing movement and rolling in every stroke, although there may be many persons whose beating seem to be repeated regularly.

The degree of this irregularity differs according to that of rolling. Sometimes it is so little that it seems completely a regular beating. The ideal way is to beat the water very hard keeping the legs straight. In order to beat the water like this, it is necessary to try to make the shaking of the body as little as possible which will be caused by other movements. Notice, however, that the natural rolling, breathing, catching and finishing movements, which is the source of shaking, are important factors for increasing the speed. If one manages to let the catching and finishing movements subside and to stop the rolling of the body, the speed will be greatly reduced, although one may swim very smoothly. Hence one should notice that a fixed rhythm should exist between beating and other movements.

10. Rhythm of Swimming

There should be harmony and rhythm, not only in the arms and legs movements, but also in every movement of the body. Strong action of any part of the arms and legs movements, effects the other parts accordingly. So it is natural that, when an arm is thrust forward violently, the other arm makes its final snap most strongly. It is impossible to explain which is first, but there exists

always the relativity in these movements.

If catching is done very slowly, the finishing movement will be very weak and slow. In other words, strength should be put into the arm when catching the water in order to intensify the finishing movement. This relation may exist between legs and arms movements but it is not so noticeable as in the case of arms only. There should be some rhythm among arm movements, breathing and continuous beating of the legs. The rhythm differs in accordance with the swimmer and when it is changed upon some hint, the swimmer sometimes gains much power or sometimes loses it. It is in this point that the very delicate technique exists. The rhythm is acquired by study and training and also it is attained gradually by the coach's hint.

11. Starting

The posture just before starting is; toes must hold the edge of the pool with the toes apart about two or three inches and the calves parallel with each other. If the legs are too close, the thighs or the heels will clash; on the contrary, if they are too wide apart, one will lose power when jumping into the water. After taking this posture, bend the legs at the knees and the upper part of the body a little forward. Then, draw the elbows back so as to be able to swing them forward at any time. The eyes must be cast upon a point at which the hands may be thrust into the water. But, do not

stiffen the body too much.

It is better to take out the strength from the knees to kick the wall of the pool very hard. But if one bends them too much, the weight of the body will be placed extraordinarily backward, and will lose much power in straightening out before diving and make only a short distance. On the contrary, if one stands straight it will take too much time before diving. Avoid placing the arms forward, otherwise one will require a great motion of the body in order to produce the reaction for diving. Also avoid drawing them too backward, for one will be unable to avail himself of the reaction although the arms need not be swung forward much. At the moment of starting, be composed so that one has a sensation, feeling the activity in this profound stillness. Do not fail to catch the starting signal made by the starter.

As the first motion of starting, the arms, which are placed at each side of the body, must be pulled up a little and swung forward straightening the body and at this moment legs kick off the wall of the pool very strongly. Take care not to have the hips bent at this time for much time will be wasted in shifting the weight of the body forward, and the form of the body in the air after jumping will be very bad. At the moment when the feet just leave the wall of the pool, the body should be straightened in a line. As it is necessary to dive into

the water at as far distant point as possible, one must try to dive a little upward as well as forward. It is not advisable, however, to jump up so high that the legs enters the water prior to the hands. Both arms must be ranged straight before the head when the body is in the air. One may dash the chest harshly against the water, if the face is placed forward too much. Legs must be close together and straightened. One can dive far out if the chest is thrown out.

There are three forms of diving; first, diving with the legs entering the water before the arms; second, holding the body horizontally so that it hits the water at the same time, and the third plunging into the water with the hands foremost. The first case is caused by jumping too high and far, and in this case one may receive great resistance of the water. Weissmuller takes this form of plunging. The impingement from the water is too great at this time that the speed produced by the hard kicking of the legs is almost reduced to nothing. Moreover, the balance of the body may be destroyed when commencing the stroke movements. One finds the same defect in the second case, but it is the proper form for rising to the surface as soon as possible and for commencing the movements. In the third form swimmers receive the least shock from the water, although they make shorter distance than the other two forms. It must be noticed here, that in this form, swimmers are liable to sink in

the water too much. But this is the most ideal form of the three, for one can keep the speed which is produced by the kicking, by sinking into the water without receiving impingement of the water and with the least rolling of the body, commence the stroke movement easily and smoothly.

When in the water, turn the fingers slightly upward at once and the body will come to the surface sliding in the water, otherwise the body will go deeper and much time is lost until it rises to the surface, while one will be out of breath and the speed wasted. The body should not be in the water deeper than two feet from the surface. As the speed is gradually wasted while the body slides, begin the beating of legs a little before the speed drops and turn the fingers more upward. Then extend the arm, which is opposite to the breathing side, in a strong pull downward and the body comes to the surface when it finishes the movement. After it is thrust forward, the stroke movement begins. Do not stay under water long even though it is quite near the surface. It is a good dive if one comes to the surface six or seven metres from the take-off, but one should never be under the surface more than ten metres.

Starting is the first step of the race and to dive well is an advantage in sprint races, a careful practice must be done at all times. It is good to practice it many times, but at first one can get across the pool only a very

short distance. It is good to practice jumping from the take-off at a rope or cloth spread at a distance which one can hardly reach.

11. Turning

Almost every race at present is held in a pool of twenty-five or fifty metres in length. In swimming 1500 metres race in a pool of fifty metres one must turn twenty-nine times. If one falls behind the other of the same power only one metre at each turning, he will be behind twenty-nine metres at the end of the race. As swimming races develop, the real power of each swimmer becomes almost the same, and it is a great advantage to secure the full effect of a strong push-off at each turning. From this standpoint it becomes more and more necessary to study and practice the turning.

In turning the swimmer should know when he comes five metres or so before the end of the pool, how many strokes is required or by which arm he will reach it. He should gauge it when his face clears the water when breathing, and should arrange the stroke so that his arm, either right or left, touches the wall of the pool when it is thrust forward. Be careful, however not to lift up the face too much in order to measure it with the eye nor to drop the speed suddenly to adjust the tempo. When reaching the wall of the pool, the swimmer must bend and turn the body very quickly so as to push off vigorously and straightly to the course.

As soon as an arm touches the wall, push it hard so as to turn the upper part of the body to the opposite side of the arm. The inertia of the legs and hips enables it quite easy to turn the body, although the speed of the upper part of the body is utterly stopped at this moment. If he tries to turn his body with it straight, it requires much time and the motion becomes very large. When the body is turned and directed to the course, a push must be made with all the force of the legs against the wall. If the body is not directed straight to the new course, the body will go astray after pushing. When kicking the wall, legs must be placed one and a half feet or so below the surface.

Kick the wall at about one and a half feet below the surface of the water and the body will be propelled sliding under the water and one can make good use of the speed gained by the kicking. In order to make this movement, it is necessary to place the body under the water. It is better to touch the wall with the arms about five or six inches below the surface and lift the water up a little with them after turning, then the body will sink.

In pushing the wall of the pool, the swimmer should bend his knees well, holding his feet together, extend his arms forward and keep his face downward so that he may secure the full effect of a push-off. If the body is placed too far from the turning point or the feet

straightened, one can hardly expect a satisfactory turning. Continue to slide the body after turning in the same manner as in starting, as far as it can propel the body with the speed gained by the push-off, then, begin to beat the water with the legs, extending the arm forward which is opposite to the breathing side. After that, commence the stroke movements placing the body above the surface. In turning, one may kick the wall after making sure of the direction of swimming with his face lifted above the water, or he may do so by keeping his face downward. As to which form is better, the latter it speedier so a swimmer should follow and practise it. In the former one may lose much time in turning, however, the advantage is that he can take a breath and ascertain the direction. It is better to make this turning than the other in an inexperienced manner. The swimmer can make good use of the speed which is produced by the kicking, if he kicks the wall along the surface of the water. At any rate, technique of turning should be realized and attained by practice and training.

12. Instructions and Advices

Beginners are liable to tire soon because the muscles and skins of their bodies are not accustomed to the water. So they should accustom their bodies as much as possible, by entering the water or playing in it, so as to increase the power of resistance against the water.

In training for the crawl stroke, begin from the leg

movements first, then practice arm movements and breathing. As the first step to the crawl stroke, the beginner should train hard in dog-paddling for it will enable him to understand easily what the crawl stroke is. Do not try to increase the speed at first but continue the practice so that one may swim slowly but for a very long time.

Leg movements are the essential part of the fundamental movements, so however skilful one may be in his arm movements, he can hardly make a progress if his leg movements are defective and irregular. Repeat the beating of legs five or six hundred times continuously at a time, then the beating will become powerful and regular. Even a good swimmer begins practice by swimming with only the leg movements to make the beating of the legs powerful and regular.

When swimming without breathing, one can decrease the rolling of the body and move his arms symmetrically. So the swimmer, who cannot swim keeping time with the rolling, must practice to move his arms symmetrically holding his breath and study the relation between arm movements and breathing by casual breathing. The swimmer whose arms enter the water too inside or outside the shoulder must also correct it by holding the breath. He should understand that, when he goes astray on the course, his arm movements are defective. If he fails to press the water effectively when his arm is thrust

forward, his shoulder may drop suddenly. It should be understood also that if the arm enters the water from the elbow first, it is because the last snap of the other arm is too weak.

A swimmer cannot secure a good snap unless he enters the arm with the palm first and drop the shoulder when catching the water. Those who cannot increase the tempo had better decrease the rolling and carry the arm forward as soon as it finishes the last snap. In breathing, the swimmer should not try to lift up his face but turn it in a very easy manner as he casts a side glance. It is necessary to swim as long as possible at the beginning because the unnecessary movements are naturally taken away during the practice.

One must not forget the starting dash, for the form then approximates that of the form when swimming speedily. Repeat the study of the technique of the fundamental movements when one feels that his swimming has reached an impasse. As breathing is a great cause for deranging the rhythm of swimming, one will find some hint by practicing to swim, holding the breath.

* * *

In the free style, the best record for the 100 metres is 56.8 seconds held by Peter Fick of the United States which is five times that of the running record of 10.3 seconds held jointly by Eddie Tolan, M. Metcalfe of the United States and Percy Williams of Canada, but this

speed is so great that one cannot keep up with it by just walking. There are many who can swim long distance, such as two miles in one hour with the crawl stroke. The characteristic of the crawl stroke which distinguishes it from the other strokes is the fact that there is no slowing down of speed. As the body is floating on the water in a horizontal position, much strength is not needed to float it and as it is like a log floating, it is very easy to advance forward. Therefore the crawl not only has speed but it is an excellent stroke for long distance events.

Short Distance Racing

By Yasuji Miyazaki

It is difficult to pick out any one special point, from the start to the finish, of a short distance race because every stroke is so important. The race course is so short that it makes the competition very close when the winner is ahead only by one-fifth of a second or a touch.

At any rate, a short distance swimmer must swim with all his might from the beginning of the race. He must have a fine, strong physique, and must train to make his muscles strong. Strong muscles, of course, are acquired by training. He can also get this by land practice.

Now, according to the present condition, there are swimmers who are short distance swimmers from the outset, or there are those who become short distance swimmers after having been long distance racers, but it is natural that most swimmers generally begin by practicing long distance racing first, and afterwards by trying to learn short distance racing. When a boy is young, he does not have the physical strength or muscles which are strong enough to swim very fast, but he can swim for a very long time and not tire easily although he does not gain much speed.

The swimmer who comes to short distance racing from long distance swimming, has such great endurance that he does not often "float" when nearing the goal, but a swimmer, who takes up short distance racing from the first, has a tendency to end in sudden failure. It is very important to have endurance as well as speed in short distance racing. The essential point is to swim the course effectively.

To have speed, one must learn the proper form, that is, perfect the form. A proper form is most important for it will give one speed and endurance. It must be in harmony with one's physique and character.

A very fine form in appearance may not be the proper form because it may not suit the physique. One should watch strong swimmers and study their forms adopting parts of them, only watching out that he is not drawn in to adopt them completely but adapt them and adhere to the form best suited to him.

The important thing is to learn a good stroke, strong kick and skilful breathing. To condense this: relax and stretch out the body as far as possible and move as smoothly and vigorously as possible. When one stiffens any part of the body, he loses a harmony of motion and becomes fatigued very easily. (But in a short distance race, it is unavoidable to slightly stiffen the arms and legs for speed.)

It is important to breathe so that it will not effect the

balance of the body; that is, by turning the face to the breathing side and inhaling quickly and deeply. And again try to learn to be able to breathe easily on both sides, the left and right sides. In the 100 and 200 metres, but not in the 50 metres race, it is better to breathe with every stroke. Many swimmers breath only on one side and do not turn back sufficiently so that the shoulder of the breathing side is lifted up and causes them to swim always with their bodies slanting. Therefore they cannot have a perfect stroke with the arm which is lower. It is important to turn back the head to the starting position or even to the other side after breathing.

If one cannot get harmony in swimming, pay attention only to the arms, and then he can easily make the swimming harmonious. No matter how perfect the arm and leg movements and breathing may be in itself, unless there is harmony among the three, a swimmer cannot gain speed.

Besides speed, one needs to have a technique of starting, turning and goal-touching, as they play an important rôle in a swimming contest, especially in the short distance race.

Starting is the first point in the contest, and whether it is good or bad effects the entire race, therefore one must learn to start fast and skilfully. One must pay close attention to the starter so that he can start at the

firing of the pistol. As for starting, one might think of it as the form in which he dives into the water, but in the strict sense, it means the motion from the dive to the first stroke. And the sliding to the first stroke is more important than the dive. Especially it is most important in a short distance race. This important sliding is: when the body is horizontal under the water after the dive, the legs should begin to flutter kick very vigorously and at the right moment make the first stroke and as soon as the head appears above the surface of the water, make the second stroke, thus keeping the speed gained by the dive, then continue to swim smoothly.

The next important point is turning. In a short distance race, it is difficult to shorten the time while swimming, so one must make use of starting and turning effectively.

There are many ways of turning, any of which will be effective if well done but it is well to use the hand that suits the individual the best. In a word, turn round quickly and kick off with force. Mr. Takaishi has explained, I think, in detail about starting and turning, so I will tell about goal-touching.

Often in a short distance race the goal-touch decides the victory. Touch the wall clearly and quickly with one hand by trying to throw the hand at it, and do not touch it under the water. After one hand has touched the goal, never touch the wall with the other hand.

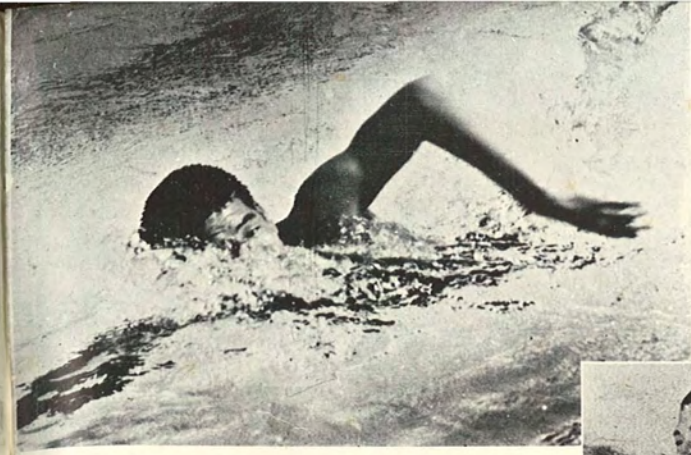
Especially in a close finish, an umpire may count the latter hand as finishing by mistake, so one must pay attention to this.

There are swimmers who slide in to the goal lifting their heads, but this is bad, for the speed is lessened by the lifting of the head and touch is slowed down. The above is a general outline of the short distance race.

As for training, the following points should be noted:

1. Increase the speed to the limit.
2. Swim at full speed as long as possible.
3. Try to master all swimming technique.
4. Try to master one's pace, that is, the rate of strokes which is created by using one's full strength and energy effectively to swim his event.

Pay attention to all the above mentioned points and try to learn them striving for a reasonable method of training.



SHORT DISTANCE RACING

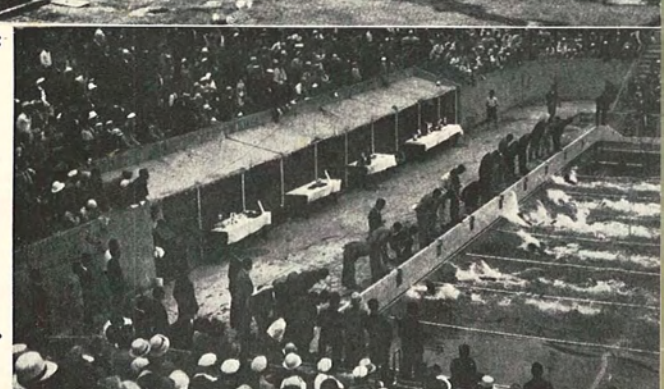
Two Poses (Left and Below) Showing the Form of Yasuji Miyazaki.

Start of 100 Metres Free Style Race at the Second American-Japanese Swimming Meet, Tokyo, 1935. Left to Right: Yusa (Second), Chrostowski, Arai (Third), Wolf, Shimura, Fick (First).

↓

Photos: Asahi

Finish of 50 Metres Free Style, Final in the All-Japan Intercollegiate Swimming Championships, September, 1935. Left to Right: Takahashi (First), Toyota, Shibahara, Miyazaki (Second), Igarashi, Takemura (Third). →



Photos: Asahi

LONG DISTANCE RACING

↑Shozo Makino Who Established a New World Record of 9 Min. 55.8 Sec. in the 800 Metres Free Style, Final in the All-Japan Intercollegiate Swimming Championships, Tokyo, 1935.

Hiroshi Negami, Second, in Above Race. →

Negami at 750 Metres' Turn in Above Race. ↘

↑Kusuo Kitamura (First) Turning in 1500 Metres Free Style, Final at Tenth Olympiad, Los Angeles, 1935.

Form of Kusuo Kitamura. →

Long Distance Racing

By Shozo Makino

Formerly the crawl stroke in a long distance race was a very slow motion, but now it is pretty fast, the speed being the same as in a short distance race. It is important that in a long distance race, one swim with greater speed pushing the water firmly without rolling the body.

As for my form, I pull out my hand before it has completed the stroke and stretch out immediately, not stroking to my waist thoroughly. This form is the best to keep a fast pace without much weariness in a long distance race.

However, the form of the long distance swimmer, Sōichirō Honda, who won the Japanese and world records for the 1000 metres in 1934, is not that of high tempo but that of long and large strokes. His form seems ideal, but, I think, because of the length of the pulling stroke, the tempo is dropped and would exhaust the swimmer greatly. I do not know which form is the best, but each swimmer should choose the form that suits him. But the most important and common point is that the swimmer has to push the water firmly away as soon as he puts his hands in without resting.

Beating with Legs

In a short distance race, the beating of the legs are big and strong, but in a long distance race, it may be a little less strong. It is important to keep up a regular, strong and rapid beating from the beginning to the end of the race.

It is better to swim keeping the abdomen deep enough in the water and bending backwards slightly just as a motor-boat raises her bow in the water and keeps her stern under when she sails. This is the most important rule for a swimmer of long distance races. Kusuo Kitamura is a representative swimmer. It is necessary to strengthen the legs for swimming by pushing down the waist and bending the back. A good way to strengthen the legs is to grasp the edge of a pool and practise beating the water with the legs or practice by holding a ball and moving the legs.

Harmony between Hands and Legs

If one would understand the motion of the hands and legs, then one must learn harmony of their movements. Even if the forms of the hands and legs are very good, if there is no harmony between them, one cannot swim smoothly nor can he gain speed because of the rolling of the body. At this time, do not think of speed, but, with the head under water, watch and pay attention to the movement of the arms and hands, and the beating of the legs.

Breathing

If one thinks that he must breathe by lifting his head turned to one side, he is apt to roll his body, for the shoulder or the opposite side is always down. Therefore it is better for him to raise his head with his face slightly aslant and with his chin close to the chest, then he can breathe naturally. Moreover one's body tends to bend backwards and this is a great advantage to long distance swimmer. (EDITOR'S NOTE: See photo 8, page 94.)

Important Points in Racing

In a case where the race starts off closely and especially where the opponent has started off faster, the swimmer must try to overtake him or get ahead of him at the turning.

The one who can turn skilfully gains tremendous advantages especially in a long distance swim where there are many turns. So turning is the most important point in a long distance race.

When Abreast with an Adversary

When abreast with an adversary who is faster, it is important to pursue him trying not to part from him. If one sees that the opponent is gradually getting tired, then try to overtake him by increasing the speed gradually. When the adversary is left behind, the more he tries to catch up the more tired he gets, so one can defeat him easily. When one increases the speed too rapidly, he becomes tired out immediately and the

opponent will catch up. In short, it is important to remember in a long distance race to swim at a pace set by oneself and to make up his mind not to go beyond that set strength.

When One Cannot See his Adversary

In the case where the swimmer is "blind," so that he cannot see his adversary but where the opponent can see him, he should swim faster than ordinary to be sure that he is not left behind.

Courageous Spirit Most Important

In racing with another, one's courage must never weaken. Go ahead with indomitable spirit with the idea, "He'll never beat me," or "He's not worth the effort." Nothing else matters if one keeps this brave spirit in a long distance race.

One can attain endurance which is needed in a long distance race, by the usual training but to win one must have the "I'll never be beaten" spirit.

Speed up the Final Part of the Race

At the present day, long distance swimmers are all of equal power, therefore it is important to conserve one's strength so as to speed up one's stroke during the last part of the race. But it is difficult to increase the speed during the latter part of a 800 or 1500 metres swim. Therefore one must practise to speed up the last of the race and in order to do so, train to sprint.

The standard method of swimming the middle distance

race such as 400 metres, is that one should swim easily for about 200 metres and quite a bit faster from 200 to 350 metres, then as fast as possible the last 50 metres.

Training and Athletic Exercises

Training is the only key to victory in a long distance race. It is necessary for a swimmer to swim every day in spite of the season. But, if there is no warm water tank equipment, it is better to practise exercises in a room or gymnasium, for it is dangerous to swim in cold water.

Breast Stroke

By Yoshiyuki Tsuruta

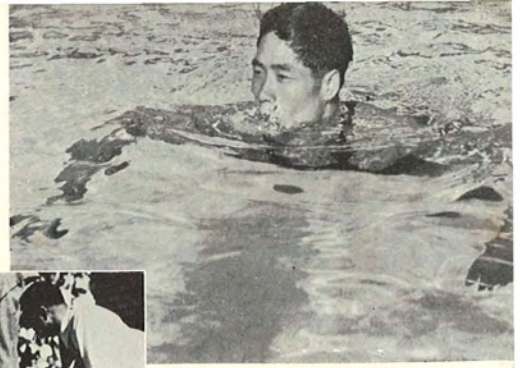
The modern breast stroke is a speeded-up form of the Japanese classic *Hira-Oyogi* of the *Kwankai Ryū* which developed in the Bay of Ise. Therefore, I believe, Japan has had a rather skilful technique of swimming method in training and coaching this stroke than other countries. From this fact and that breast stroke is so popular in Japan, one would naturally think that the Japanese would be superior in the breast stroke swimming circle.

But as soon as the modern crawl stroke was introduced into Japan, most of the Japanese swimmers took a fancy to this new speed swimming, and took it up without hesitation, giving up the old Japanese breast stroke. There were some swimmers who imitated the form of Yldefonso, a Filipino, who had worked out a form of swimming from that of pearl divers of the South Seas.

With my success in the breast stroke at the Amsterdam Olympiad in 1928, and with the rise of youthful swimmers as Reizō Koike and Miss Hideko Maehata, this stroke has regained some of its popularity. Now, Koike and Miss Maehata are among the leading breast

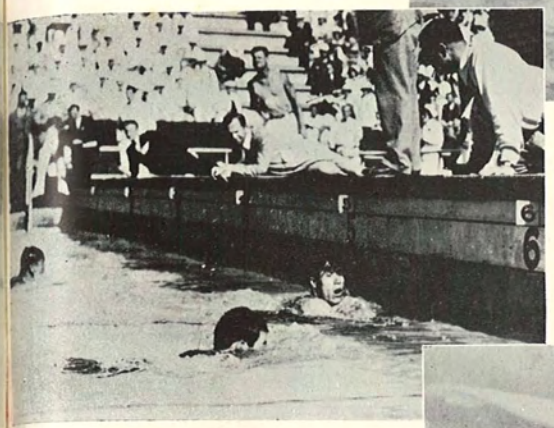
BREAST STROKE

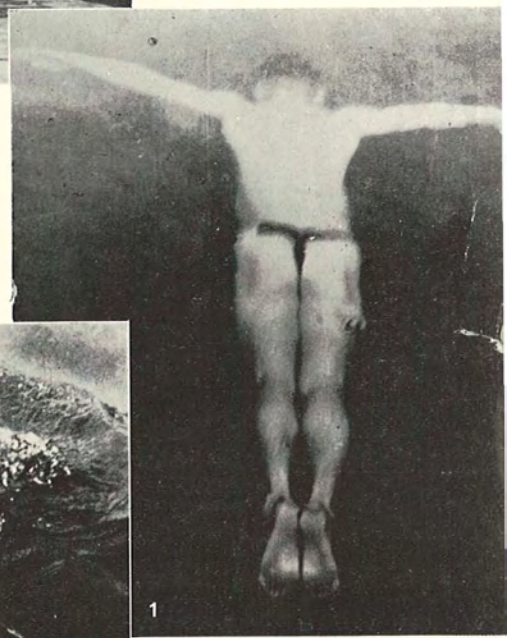
Yoshiyuki Tsuruta. →



Wide World Photos

←Finish of Tsuruta in Men's 200 Metres Breast Stroke, Final at Los Angeles Olympiad. Lane 6, Koike (Second) Lane 4, Yldefonso, Philippines (Third).

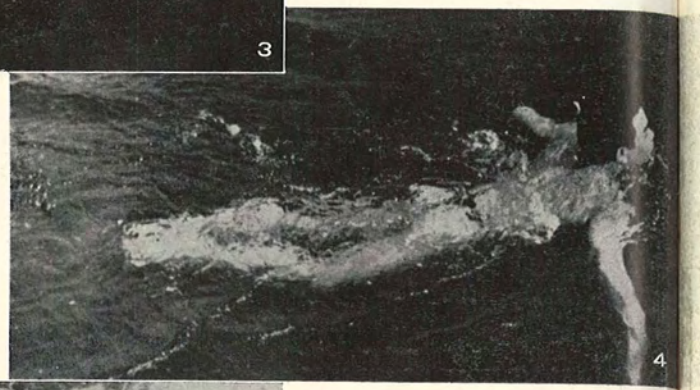




1. Beginning of Breast Stroke After Diving. (Form of Reizo Koike.)

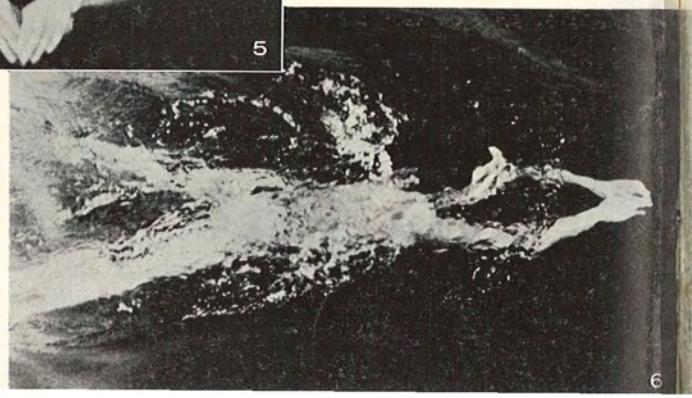
2. Frog-Kick of Reizo Koike.

Poses Showing Reizo Koike's Form.



3, 4. Two Views of Snap in Breast Stroke.

5. Position of the Arms at the Beginning of the Frog-Kick.



6. Side View of the Same Position.

stroke swimmers of the world. I am quite sure that the present day stroke has been influenced by the Japanese classic breast stroke.

Preparatory Exercise on Land

The way in which preparatory exercise on land is generally done, is as follows: (1) bend the elbows putting the hands together in front of the breast, and at the same time, half bend the knees outward; (2) from this posture, stretch out the arms in front slowly; and when partly stretched, start straightening the knees so that the legs and arms will be fully extended at the same time. The posture at this time is: the hands are stretched out in front horizontally and parallel while standing straight; with the palms faced downward and outward, stroke outward in a wide arc to the shoulder line, then turn the palms down and bend the elbows bringing the hands back to the breast, at the same time bend the knees. It would be helpful to repeat these motions until one can feel a relation between the arms and legs motions remembering that the arms start to stretch out a little before the knees.

Training in Water

1. Training of the Legs.

With the shoulders above the surface of the water, stretch out the legs to their full extent with the heels about one foot under water while holding on to the overflow of the pool or if in shallow water by support-

ing the body with the hands at the bottom. From this position, bend the knees slowly, then return to the starting position by trying to squeeze the water between the heels. Repeat this leg movement. When bending the legs do it slowly, gradually separating the heels so that it offers least resistance to the water and the legs are wide apart. When the legs are fully bent, the heels should be about one foot apart. Then immediately kick off to both sides strongly and with a wide movement try to squeeze out the water between the legs until they are snapped together closely. Then relax the leg muscles, after which start bending the legs again gradually. The above movements should be done smoothly; the leg kick vigorously; the bending movements slowly and repeat often. It is easy to kick out with the legs but it is difficult to hold the water between them.

By training, one should develop the muscles of the legs for this movement. If the buttocks move up and down, then too much strength is being put into the bending of the legs. When this movement has been practiced sufficiently then try it holding on to a floating object like a life-belt. When one has learned how to kick and how to bend the knees, then one can advance about 200 metres. At this time, when kicking, put the face in the water and when the body is being propelled at its height, that is, the time the shoulders are raised above the surface of the water, raise the chin and inhale. As

the practice advances, gradually change the floating support to a smaller object until one can get along without it completely, then stretch out the hands in front about three inches below the surface of the water then the body will be floated by the strength of the leg kick, the tossing of the shoulder will become negative, and breathing can be done smoothly.

Those who have not a harmony between arms and legs; those whose buttocks move too much so that they cannot balance the hips; those who have not strong leg movements, can all correct their forms by the above mentioned method of training. Yldefonso usually practiced only his leg movements but he had the same speed as others. Consequently though he did not practice his pacing very much but because he had fundamental training, he placed third at the Los Angeles Olympic Games.

2. Training of the Arms.

If in a pool, stand in a depth of about three feet and bend the upper half of the body with the shoulders barely under the water. In this posture, practice the arm movements. At first, place the hands at the breast with the thumb next to it. Stretch out the hands with the elbows lightly bent and about three or four inches below the surface. Turn the palms outward and catch the water as though to press it, then stroke in an arc until just before it reaches the shoulder line. At this

time, push the water back with a snap. This movement should be done with the palms turned back pressing the water backward instead of "hugging" it. The movement should start slowly but the finish should be done very vigorously. If this final snap is effective, the body will be pulled forward. At this time, if one bends the elbow and bring the arms back to the starting position with the least resistance then the body will naturally float and slide forward. In bringing the arms back to the breast lightly, relax the arms completely and with a motion as though to hold the water under the armpit. Then immediately stretch out the arms and repeat the arm movement. This arm training will become one's form in swimming, so it should be practiced thoroughly. Even the best swimmers who practice their pacing to shorten the records, must pratice these training of the different parts of the body to perfect their form.

Form (relation of arm, leg motions and breathing)

The more one practises the arm and leg motions and breathing, the easier it is to do it harmoniously. A perfect form of breast stroke is built up from the above mentioned fundamental movements. If one is dissatisfied with his swimming form after he has advance a little, he should start all over again from the beginning, that is, practice from the fundamental movements. The form

mastered by training the legs will become perfect; the hips will be stable; the shoulders will not be tossed and the breathing will be harmonious. As the training was done with the arms outstretched, it will be easy to go into the stroke movement of the arms and again as the arm movements are practiced, the catching movements can be done skilfully and smoothly. In such manner, as each fundamental movements of the different parts of the body are perfected, the better the form will be in proportion to the amount of practice and training. But it is most difficult to get such harmony of motions. In the year previous to the Los Angeles Olympic Games, I was in a slump and no matter how hard I tried, I could not better my time. It was a very trying experience.

What is a good relation between the arm, leg motions and breathing? To explain it in brief:

A. Keep the head and shoulder high and the feet low, about one foot or more below the surface of the water. To cut the water with the forehead is a very good position. It is bad to put the face into the water intentionally after kicking to gain speed, for such action will only cut down the tremendous speed gained by the kick.

B. Start stretching out the arms in front and then kick off as strong as possible.

C. After stretching out the arms completely, hold the

water between the legs firmly. At this time, a great quantity of water is kicked out backward, producing a great speed. Kick with the soles of the feet and try to hold the water with the inside of the thigh. One should not kick with the instep or use the flutter kick.

D. When one stretches out the legs to their full length and the speed is at its height, turn the palms outward and begin to stroke outward by pushing the water backward. At the same time, lift the chin up so that the mouth is above the surface of the water and inhale. It is no use stroking with the arm after the speed has slowed down. As soon as one inhales, lower the chin until the water reaches the forehead.

E. Finish the arm movement very vigorously so that the speed created by it will be added to that made by the leg kick. When putting the face into the water, relax the arms and bring it back to the breast so that it offers least resistance to the water, and at the same time, bend the legs and go into the next motion. In this way, one can get the smoothest gliding.

The following points should be noted particularly in practicing the above method:

A. When stretching out the arms, do not put the hands very deep into the water, for the power of

the stroke to move forward would be diminished as it would be taken for the downward movement.

B. Care should be taken in bending the elbows and bringing the hands back to the breast so that it is done skilfully. Do not waste strength and do not stiffen the body for it will cut down the speed.

C. One should not stop the arm movement at the breast but continue to start stretching, as if to just brush the hands by the breast. At the time one kicks off with the legs, the arms should be fairly straightened. If the stretching of the arms is slower than the kicking of the legs, the catching movement cannot be done quickly.

D. The chin should not be pressed against the breast all the time. There should be a co-ordination between the kick, power of the arm strokes and the raising and lowering of the chin so that one can breathe easily and smoothly.

E. Open the legs outward, left and right, and do not draw the knees up to the abdomen, because one cannot keep the body balance.

F. Bend the legs so as not to be held back by the water. Relax after kicking.

G. Take a breath with every stroke except at the start and turning.

Some swimmers have eccentric forms, one of them being Yldefonso. He strokes outward to the hips very

strongly. At this time as he keeps his head straight, that is, in line with the body, it moves under the water. This stroke is very effective so that it is very speedy. But in breathing he has to raise his head suddenly which pulls his body up a little, so that at this moment the speed is completely stopped.

There is another American swimmer, Fissler, who swims under the water for about 20 metres but this exhausts much energy. As one needs fresh air in contests, one should breathe with every stroke.

Starting

The starting of the breast stroke is almost the same as the starting of the crawl stroke, but one is forbidden use the flutter kick, or separate his legs in midair to beat the water.

After jumping in, and before the speed slows down, begin to stroke out lightly and speedily by slightly bending the arms which were stretched out above the head. When the arms reach about the shoulder line, push the water backward with a feeling of straightening the elbows. Do not make the first stroke very large. As the speed of this one stroke is added to that made by the dive, bring the hands to the breast and at the same time bend the legs slightly, start stretching the arms out and with it, kick off vigorously. Thus go into the regular breast stroke movement and rise to the surface. A swimmer who has a light body or who is not skilful

in stroking under water, should come to the surface with one stroke, but those who stroke well and who can rise to the surface easily should practice making two or four strokes under water coming to the surface after fourteen or sixteen metres swim. If the body goes deep after diving, try to move forward instead of rising for the body has natural floating power. Do not take a full breath, breathing less than eight-tenths before plunging. The stroke should not be done stiffly but lightly and calmly.

Turning

At the turning or goal-touch in a contest, always touch the wall with both hands at the same time or it will be a foul. There are two ways of turning: one as used generally by the Japanese swimmers, that is swimming until both hands touch the wall and then turning; the other as used by many western swimmers and lately by some Japanese swimmers, that is pulling both arms out together and throwing them at the wall as in the *Inatobi* (EDITOR'S NOTE: see page 42, 43, plate 1) and turning on this rebound. As to which of these methods being better, it is hard to say, but in pools where there is an overflow, one can draw the body and legs to the wall by holding on the overflow. But if there is no overflow, it is better to practice the "*Inatobi* style" of turning on the rebound but do not jump too high or too hard.

Point of Turning.

Increase the speed from about ten metres from the wall; touch the wall with both hands at the same time; push off with the palms against the wall; bend the knees and hips then the upper part of the body will come up above the surface of the water. Then turn the head to the right or left side and push off firmly and energetically with both hands, then the body will turn naturally. If there is an overflow, one can turn by holding on to it. Inhale at the time the shoulders are raised. The face should barely be above the water. Just as the turning in the crawl stroke, touch the wall with both feet and push the hand in the water the palms upward as if to scoop up the water. This will bring the buttocks close to the wall and the head down. Then turn the palms downward with the arms outstretched as though to hold the ears between them and begin to kick. Do not let the buttocks appear above the surface of the water or the head will sink too deeply. Then begin to swim just as in the beginning.

In contests there arises questions when a swimmer turns slightly before both of his hands touch the wall fully. After the Los Angeles Olympiad, this very question came up at the committee meeting and it was decided not to be too strict in judging this point. But one should always practice touching in the proper form. If one learns the technique of turning the head vigorously,

then it will add to and make the turning easier and it would be unnecessary to turn before touching.

Turning in the "*Inatobi* style" is used when one is too near the wall to make another stroke with the arms and have just space enough to kick off. In such a case make one strong stroke with the arms and pull the arms out together. As the body pitches forward, throw the arms at the wall and turn the body. Practice both ways of turning.

In the breast stroke, one must be especially careful of the goal-touch. No matter how far ahead one may be if he fails to make the proper goal-touch, he will be disqualified. One must fully touch the wall with both hands at the same time.

ATTENTION: As the rules of the breast stroke event is very complicated and often many questions arise in judging, one must be very careful during training not to infringe upon these rules.

Back Stroke

By Masaji Kiyokawa

The Place of Back Stroke in the Japanese Swimming Circle

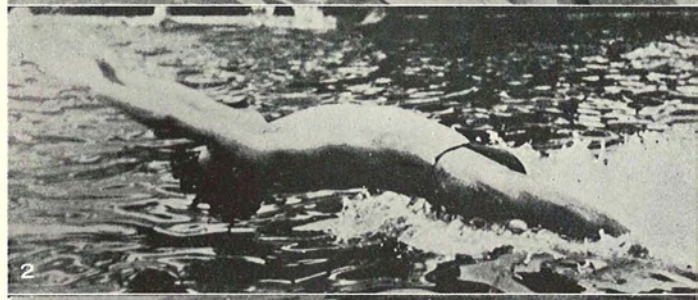
When we examine the national records of Japan in the crawl stroke, back stroke and breast stroke events, we can see that the development of the back stroke is the slowest in comparison to the other strokes. Although all these different so-called speed strokes were introduced into Japan at about the same time, the back stroke is the only stroke that has been left behind in the development. What is the reason for this?

From the early days in Japan, the different schools of swimming have been studied extensively as a part of the military art of *Samurai*. For instance there was *Nukite*, similar to the present crawl stroke and *Hira-Oyogi* of *Kwankai Ryū* which is like the present breast stroke. The excellence of the present Japanese crawl and breast strokes is due to the combining of the best parts of the Japanese classic and the new western styles of swimming. Because there existed a predisposition to which was added qualities of the foreign style, these strokes developed and

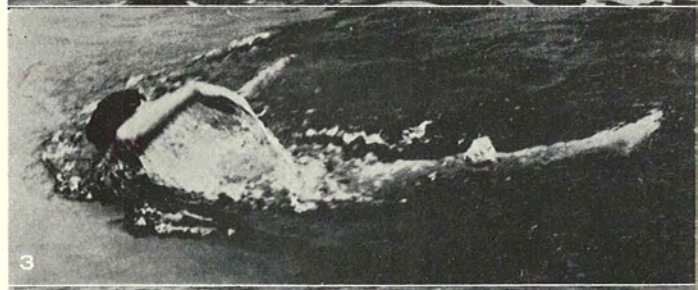
BACK STROKE

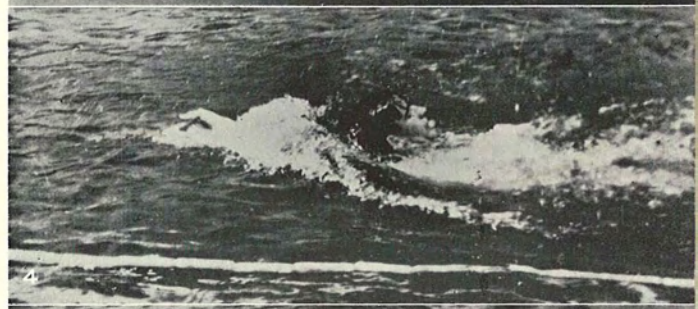
1. Ready for the Start. (Form of Toshio Iriye.)

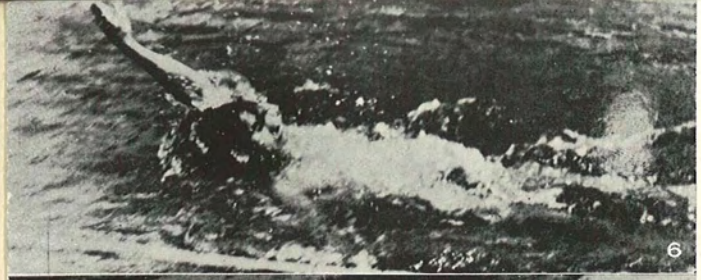
2. Start Immediately Following the Kick from the Wall. (Form of Toshio Iriye.)

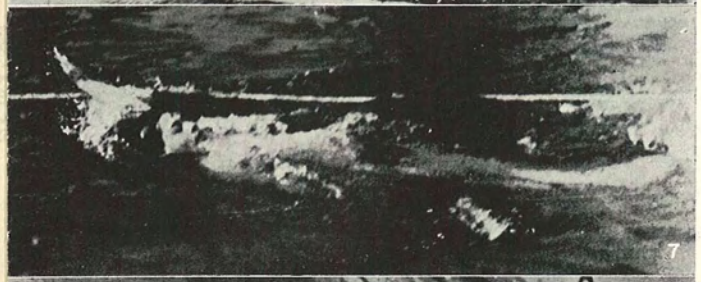


3, 4, 5. Views Showing the Back Stroke. (3. Form of Iriye; 4, 5. Form of Albert Van de Weghe U.S.A.)









6, 7. More Views of Back Stroke. (6. Form of Van de Weghe; 7. Form of Iriye.)

8. Turning in Back Stroke. The Head Passes Under Arm Holding Overflow and then the Other Arm Catches Overflow. (Form of Toshio Iriye.)

9. Finish of 100 Metres Back Stroke, Final in Tenth Olympic Games, Los Angeles. Lane 6, Kiyokawa (First); Farthest From Camera, Kawazu (Third); Next, Iriye (Second).

advanced wonderfully as every one knows. But the back stroke is a new style swimming in Japan, for there is nothing similar to it in Japanese classic swimming. Therefore it is natural that the back stroke was left behind the crawl and breast strokes.

Back Stroke in the World's Swimming

Now, in view of the present condition of the world's swimming, we must understand the fact that the back stroke is behind the crawl and breast strokes in its technique and records. Among many reasons, the greatest one is that swimmers of the crawl and breast strokes swim in the natural position, that is, with the ventral side of the body in the water, while swimmers of the back stroke swims in an unnatural position, that is, on the back. In addition to this reason, the movements of all parts of the body are not as harmonious as in the other strokes and also it is easy to stray from the course because one is swimming on his back. Moreover as he is on his back, if the movements of the hands and legs are not smooth, his body will sink and as the water enters through the mouth and nose, it will be difficult to continue swimming. For these reasons, this method of swimming is thought to be a difficult one. Because of this prejudice it is practised by very few and so does not improve as the other strokes.

Back Stroke

But is it really so difficult? If we are actually at it,

and when we understand the proper method, we see that it is no more difficult than the others.

Now, for a general idea and an understanding of the back stroke, we will see the rules for it in the Regulations of N.S.R. (Amateur Swimming Federation of Japan).

(1) The swimmers must stand in a row in the water facing the starting point and must hold the overflow on the wall of the starting point.

(2) From the starting signal the swimmer must swim always on his back during a contest. If a swimmer lets go of the overflow before the report of the starting gun, it is deemed a foul.

(3) When turning, the swimmer must touch the wall with one or both hands. At the turning or goal, if one of the contestants should turn over on his face before touching the wall, he shall be disqualified.

* * *

A swimmer who is going to study back stroke must keep his mind constantly on the above three rules. Remembering the above, I will explain the most important movements of the back stroke.

A. Physical Form

The swimmer must always lie on his back with his body as straight as possible. The position of the head at this time is: keep the chin in and keep the eyes on the leg movements. Do not bend the hips and expand the

chest so that it will be above the water.

B. Legs

Keep the above position, beat the water with his legs to float the body and advance forward. When one puts strength in his tiptoes and stretches them out, they will naturally turn inward and the big toes of both sides will be one above the other. Without bending his knees, beat the water with the whole leg moving alternately. At this time, relax the ankles and with the instep lift the water and kick it off in front.

C. Arms

The arms stroke the water alternately. When a swimmer finishes a stroke and in pushing back his arms, he shrugs his shoulders as much as possible so that it offers least opposition to the water and pulls his arm out with the elbow first. Pull the elbow out of the water as much as possible then stretch it out as close as possible to the face to measure 45°, then bring it back and put it into the water with his little finger first. Then catch and begin the stroke. The hand should not stroke very deeply and with one effort bring it to the outer thigh. There are some who press the water after stroking, but this causes unnecessary rolling. Then repeat these movements.

D. Breathing

In all swimming strokes the most important point is that the arms and legs must be harmonious with each

other. Breathing brings about an adjustment of the arm and leg movements. Breathing is studied seriously in the crawl and breast strokes but in the back stroke it is thought easier than the others because of one's mouth and nose being above the water, and one is not apt to study the breathing. However, the breathing is more difficult in the back stroke and especially when the water in the pool is rough or when one's body is tired and all the movements are not smooth, it becomes greater. One has to breathe through the mouth at every stroke and adjust the tempo of the arms and legs.

* * *

The general explanation of every part of the movements of the back stroke is as stated above. But the one point which I wish to explain in particular, is the action of the legs. The relation between arms and legs, as I have mentioned, is most important in swimming. However, in the back stroke I cannot explain the timing of the arms and legs; that is to the one stroke of the arm how many beatings of the leg there is. Therefore it is well for one to swim himself, paying attention to the following and acting accordingly, and then he will comprehend the stroke naturally. The trunk, in all swimming strokes, is floated by the action of the legs and is advanced forward speedily by keeping a straight course and stroking the water with the arms; hence the motion of the legs is most important. Especially in

the back stroke, if the beatings of the legs is not effective, the body is apt to sink. The arms cannot move harmoniously; not only for this reason but also because the power of the arm in the back stroke is weaker than in other strokes. But if he stresses only his leg movements and not think of harmony with his arms, he will be out of tempo in swimming and cannot go straight in his course.

The Start, Turning and Finishing (Goal-Touch) in the Back Stroke

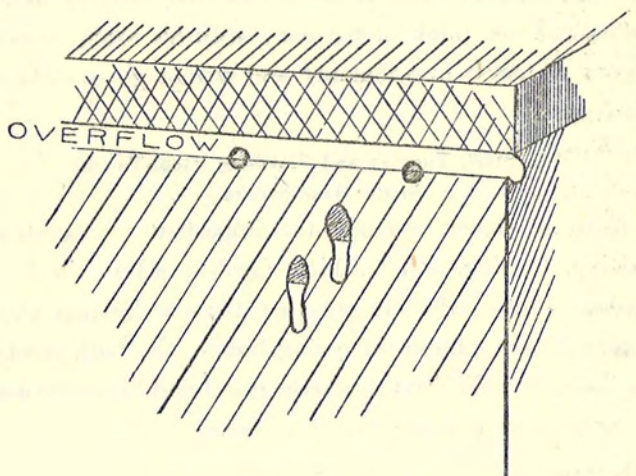
Next, we have to study the important points about starting, turning, and finishing (goal-touch) in the back stroke. It is needless to say that these techniques plays a very important rôle in racing but in the back stroke, conditions are different from the crawl and breast strokes, so special care and practice is necessary.

1. Start.

The start in the back stroke is different from the others and must be performed in the water according to the above mentioned rules. That is to say, the swimmer is in the water and faces the starting place; he grasps the overflow tightly with his hands keeping it apart as wide as his shoulder. The stronger leg touches the upper part of the wall about two inches from the surface of the water and the other, two or three inches lower touching the wall with tiptoes only.

When the starter gives the signal, the swimmer draws

his trunk near the wall bending his elbow and his back. Consequently the kneecap of the upper leg comes out the water near the chin. Then he prepares to start at the call of "ready" by the starter, and next, at the gun



The position of the hands and feet at the start of the back stroke

report, he pushes the wall with his arm with all his strength and starts swinging out, kicking the wall with his legs. At that time he must be careful for if he leaves the wall before the gun report, he is disqualified as "flying". When starting, he stretches out the arms as straight as possible intending to cover his ears. He floats in this condition awhile. The swimmer must make use of force gained by the kick at the start, because this

increases the speed in spite of the resistance of the water. When this speed slows down, he starts his flutter kick. Then he rises to the surface stroking the water about three times with his arms rapidly and with small strokes, then the sliding will be smooth and the regular stroke can be done successfully.

2. Turning.

At present, swimmers in all countries have their own individual way of turning. Some swimmers touch the wall and assume the posture at the start, grasping the overflow for a moment before they begin to kick and repeat the start over again. But I think it is not an effective way. Others turn back in their course as if they were doing a tumble. But I believe there is danger in this system of losing speed for five or six metres from the wall. The best way of turning safely and speedily is this: that as soon as the right hand touches the wall, one should bend his legs instantly and bend his trunk; turn back his body twisting by his breast to the right. Then the legs naturally take the same position as on the start. At the same time, he makes a motion as if to scoop up the water with the left hand, then the body is drawn towards the wall and aids in the turning movement. By this action he can turn back in his course easily and swiftly. Before the turning movement is over, he stretches out his right arm with his left arm above the head and with the same turning as in the crawl stroke,

except the difference of the body position, and kicks off from the wall just as is done at the start.

Now, at the start and turning it is true that one is troubled by water coming into his nose. At such a time it is advisable to exhale through the nose, so he can do away with this discomfort.

The following are the points to be especially observed in turning:

1. Do not slow down the speed from seven or eight metres from the wall, but go as fast as possible. Because the faster one goes, the faster and more safely he can turn.
2. Draw in the body, especially the legs as much as possible. When carrying the legs to the wall, do not bring up the legs but turn with the kneecap above the water.
3. Make use of the left hand in order to turn easily.

3. Goal-Touch.

As the end of a race approaches, everyone can not spurt because of fatigue, but at that time, one should do his best with every bit of strength left. If one should turn face down too soon before touching the goal, he is disqualified from the race. One must not touch with the back of the hand, but with the palm, with a motion as if thrashing the wall. And avoid under-water touching, for the umpire cannot see it.

The Method of Training for the Back Stroke

I will now explain how to train for the back stroke. Of all the movements of the body, as I have said, the movement of the legs is the most important. It is said that the issue of a contest depends upon the strength of the legs in the back stroke. Therefore, anyone who is going to study the back stroke, must not neglect the training and strengthening of his legs.

First, there is skipping, the best training on land. Then, in the water, there is the training for the back stroke kick. To do this, he must stretch out his arms as straight as possible. And his body must be straight, keeping his chin drawn in so that his eyes are on his leg movements. Then while in this position the whole leg is moved, not bending his knees but keeping the legs straight. Then, when he is able to float thus and make fair speed, he must add the study of the arm movement.

The back stroke is generally used in short distance races. Therefore one must always practise for a dash. Divide the various race courses into parts and practise so that one may work out his pacing.

Women's Breast Stroke

By Miss Hideko Maehata

When the women swimmers are compared to men swimmers who have become the best in the world, we do not know what to say except that we are sorry that our swimming is so inferior to theirs. But nowadays girls are gradually improving in their swimming, and this is a great joy to us.

I first started to swim breast stroke about ten years ago. In those days, girl swimmers were not recognized at all, and there was no time given to timing or form, and it was considered good, if one could get the first place in any event. As for myself, the interschool swimming match in primary school was the most feared event. As I was then very young, I did not know and had never even thought when and where in Tokyo the swimming match would be held or what the girls records were. How girls have advanced since then! Even the Amateur Swimming Federation of Japan of to-day was not established.

Every time I recall the past, it makes me think of the marvelous advancement made in the girl's swimming circles. After the Amateur Swimming Federation of Japan was established, the swimming ability of girls became

recognized all over the country. In Tokyo, Osaka, Nagoya, Kyoto and all other cities, most Girls' High Schools have their indoor pools and swimming is encouraged. The reasons for the growing popularity of women's swimming are as follows: (1) it has come to be appreciated by the people; (2) the problem of the need of increasing physical strength is understood; (3) the feeling has become strong that every girl should be taught to swim, and it is a mistake for Japanese girls, whose country is surrounded by seas, not to be able to swim.

When I began swimming, everybody used to say, "What a tomboy, swimming!" or, "There is no need of swimming for girls. The only thing they should do is to help with the housework and sewing." So the girls who started swimming at that time were really very unfortunate. I can understand the real difficulties of that time because I was one of them.

In swimming, we think first of the girls' physical strength. Swimming differs from tennis and other athletic sports, in that it exercises the whole body and not just parts of it. It is an ideal sport for girls and helps them become strong mothers in the future. It is the hope of Japanese girls to develop into women with good physical bodies so that they will not be ashamed before the women of foreign countries.

I will illustrate this by giving the impression I received in the Olympic Games in 1932. I felt that we

were so small in comparison with the girls of foreign teams, that we seemed like children to them. You can easily see from this, how Japanese women are physically inferior. In order to keep up with the foreign women, we must build up our bodies by training and by the most suitable exercises, especially by swimming.

Women and Swimming

The most suitable sport for women, as I have mentioned before, is swimming. Swimming gives balance to the body and, as the muscles are rather pliant, there is a strengthening power in it, so by all means I wish to encourage swimming among women.

I think it is best to teach swimming from childhood. I do not mean children of three or four years of age or babies, but those of grammar school age, seven or eight years old. By this time I presume their fear of the water is overcomed, and there will be hardly any timidity so they can learn quickly how to swim. At first it is best to learn the crawl stroke but, if it cannot be done properly, a good exercise is to float on the water. Having learned this, the next thing is to practise the crawl. Then in order to learn perfect form, one must practice this one stroke and not any other strokes such as the back stroke or breast stroke. Because, if one practices various strokes, the crawl stroke cannot be mastered. At the ages of thirteen and fourteen, participation in many

races are not advisable. When one is racing the heart beats fast and one gets excited, consequently energy is lost and this means loss of form. After one has thoroughly mastered the form of the crawl stroke and is sure of it, then one may go into either back or breast strokes. After this, time should be used in practicing the stroke one likes best, one will surely become a splendid swimmer.

For women, there should be from three to four days rest in each month. At this time they must not be forced, to do anything, and, whether they want to swim or not, it is better to rest, particularly from racing. Some girls force themselves to swim, but if they do this, they will ruin their health. It is not good for the body.

I know that if girls do not learn to swim while they are children and when they become fifteen, sixteen, eighteen, or nineteen years old they will say that it is too much trouble to learn. However, it is better not to fear the water and to learn how to swim as soon as possible. At first they may dislike it because, if one cannot swim well, it makes her feel rather shy and ashamed, yet, if she tries her best, within two or three days the body will respond to the buoyancy of the water and be held up by it. When one has learned to float on the water, she can easily learn any stroke she prefers.

My Breast Stroke

Recently I have been swimming the crawl stroke, and, when there are not enough swimmers for a relay race, sometimes I take part with the others, but there is almost nothing to be said about my crawl stroke. It is better to say that it is simply a means of exercise. Also, as I do not know much about the back stroke I will omit discussion of it also. My ability in the breast stroke is nothing for me to boast about, but I should like to tell how I learned it in order to show the methods for learning it.

I learned to swim in a river. In those days there were various Japanese methods of swimming. As *frog kick swimming* was comparatively easy to learn, I had been taught this and practiced it diligently. It was not the systematic breast stroke of the present day but similar to it. When I was twelve or thirteen years old, our primary school team took part in some swimming contests. This was the first time we learned to correct our swimming and to use the proper form in the breast stroke. We observed various rules for the movements of the arms, for the opening of the feet, and also for turning. Then gradually we learned to swim correctly. At this time I fortunately always won first places when I entered contests held by different districts. At the age of fifteen, I

took part in the contest at Hawaii, the National Women's Swimming Championships in 1929. I raced with Miss Garatti, and Miss Hoffman, both Americans, who at that time were known as the world's foremost swimmers. It was a 200 metres race and Miss Garatti won by 3 min. 17.0 sec. I came next beating Miss Hoffman by 3 min. 20.0 sec. and this made me to be praised by all. I became entirely absorbed in swimming, as it was considered all right if we swam with all our might. I imagine now, that we swam then, having no idea at all that we were rivaling champions. That is why the result was so satisfactory. Still, because of this I thoroughly understood that I was inexperienced and also that I was not an expert racer.

Mr. Ikkaku Matsuzawa who went with us as our coach was the coach of the Japanese team at the Olympic Games of Los Angeles. He taught me to easily recognize my weak points. Consequently during practice his instruction was a great help to me. Because of this help from him, when I attended the Tenth Olympiad held at Los Angeles in 1932, I expected to win first place. I trained very hard during the preceding year, but I barely made a record of about 3 min. 15.0 sec. So I felt exceedingly doubtful about it. However, in the 200 metres breast stroke trial heat my time was 3 min. 10.7

sec. and in the finals I was defeated by Miss Clare Dennis (Australia) whose time was 3 min. 06.3 sec. by just about a touch. Later in 1934 I made a world's record of 3 min. 02.8 sec. By this I retrieved my honour.

Entrance to Breast Stroke

My improvement in breast stroke was so irregular, that I am afraid, it may not be thoroughly clear to all, even though I have explained. However, I will give a few points which I consider necessary.

To practise the movements of the feet, hold on to the side of the pool with both hands. Then, float the body horizontally on the surface of the water. Gradually separate the feet, which have been held together. When doing this relax the lower leg and think only of drawing in the feet. It is important to move them directly outward but it is apt to raise one's hips, a thing we must be careful not to do. Then after having learned to draw in the hips and both thighs in one straight line, and after relaxing the muscles, prepare for the kicking. In the first place, practise to strengthen the lower leg which was kept relaxed. At this point bend the ankles so that the soles of the feet will face backwards and kick out with strength. Then drawing the legs together, stretch the feet to hold the water between them, stretching the

ankles and with the lower leg push back the water with strength. The next exercise is to cut the water smoothly with the feet without splashing, in order to keep a perfect balance.

To practise the movements of the hands, stand in a shallow place and stretch the arms outwards in front of the body. Stretch the shoulders forward also. Turn the palms of the hands outward and move them through the water making a semi-circle on each side, at the beginning, do this movement just the same as that of the feet. Leave the hands stretched just as they are but gradually, after having become familiar with the motion, bend the arms and then, with strength, push out the arms sideways as if to seize the water firmly in the palms. Next bring the arms before the chest. As one draws the elbows to the sides, turn the palms inward, pressing the water downward, and push the water away from the chest. Then stretch out forward, just as before, and return to the former stretching motion. It is necessary to repeat this motion many times. At first the insides of the wrists face outward. Their position is changed twice before they come back to the same position in front of the chest. When the arms comes by the side, it faces inside and in front of the chest, downward. As these movement are very important, pay close attention to

it. If one over presses the water, it will slow down the speed, and if one stretches out her arms to stroke too much water, the arm motion will get slower.

After the motions of the hands and the legs, have been mastered, try to use both motions at the same time. When the body is pushed forward by the kick, stretch out the hands in front, put the face in the water, and stretch the whole body in order to utilize the speed of the kick. The hips should not be unbalanced nor should the hand press the water too hard, nor should the upper part of the body sink, so float the body as horizontally as possible to utilize the speed. When the speed decreases the upper part of the body is likely to sink by just stretching out the hands, so before the speed slows down, start the arm movement.

As soon as this motion is started, gradually push down hard on the water, and lift the head with the movement of raising the upper part of the body in order to take a breath, and at the same time draw the legs together. When the arms have been stretched sideways as far as possible and the water pushed away with all the strength of the palms of the hand, finish the breathing with this final snap. This snap not only pushes the water backward, but at the same time it pushes downward to aid in raising the body high enough so as to breathe.

When speed has been added by this snap, bring the hands to the chest and at the same time draw in the legs. As one stretches out the arms and at the same time kicks out with the legs, the head will gradually go into the water.

This motion of drawing in the legs is to spread the thighs apart so it is apt to offer resistance to the water and the body may easily be tossed. But to decrease this tossing and resistance and to do this movement quickly, be very careful to watch the movements of the arms and hands in the pressing, also do not move the head up and down too much. To do this, always have about half of the head above the water so that in breathing, it need not be lifted very much. But since respiration is the fundamental energy of the body, one must breathe perfectly.

If the body is raised so that the mouth is absolutely above the surface of the water and if the chin is stuck out, one can breathe sufficiently without much movement of the body. To lift the upper part of the body, till the mouth comes above the surface, is also one of the methods. The motion of raising the upper part of the body is detrimental to speed, but increases the power of the kick.

In the leg movement, the girls do not spread their legs

far enough apart. Pay particular attention to this point in order to retain good form. And last of all it is necessary to move without hesitation.

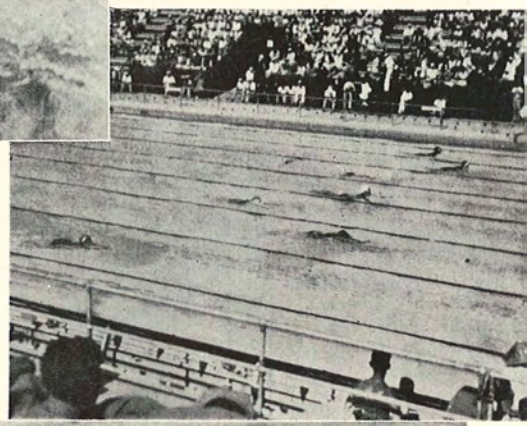
* * *

As Mr. Tsuruta, will undoubtedly explain the start, turning and other movements, I will omit it, and end my short article hoping this will at least help those who intend to learn the breast stroke.

Asahi

WOMEN'S BREAST STROKE

Two Poses Showing the Form of Miss Hideko Maehata.



Final of Women's 200 Metres Breast Stroke 10th Olympiad, Los Angeles. Miss Maehata, Center With White Cap, and Winner, Miss Clare Dennis of Australia, Second, Farthest from Camera. →

Japanese Women Swimming Team at Los Angeles Exchange Greetings with Australian Mermaids. ↓

Osaka Mainichi

JAPAN'S BEST SWIMMERS

Left: Yasuji Miyazaki (Keio University), Short Distance.

Left: Kusuo Kitamura (Kochi Commercial School), Long Distance.

Below: Masanori Yusa (Nihon University), Short Distance.

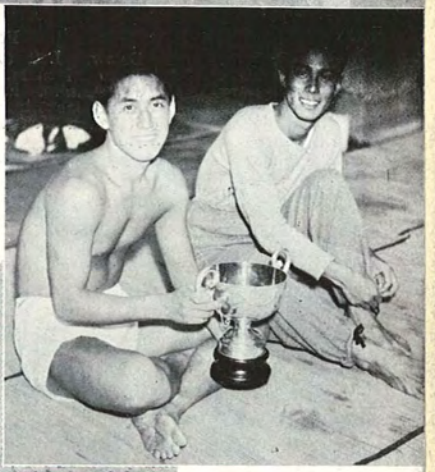
Photos: Shimbun Rengo

Below: Shozo Makino (Waseda University), Right and Hiroshi Negami (Rikkyo University), Left, Both Middle and Long Distance Racers.

Shimbun Rengo

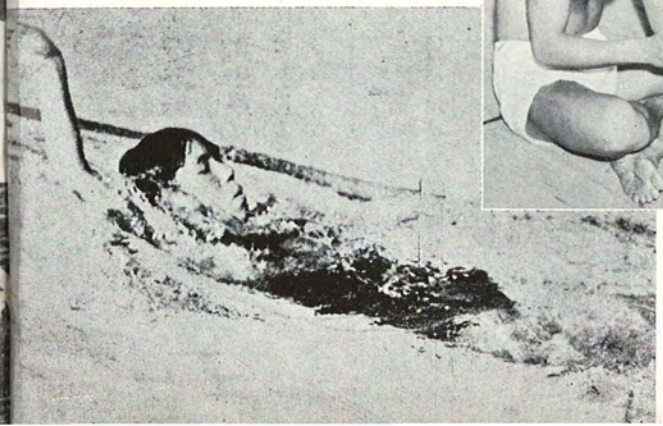
Upper Left and Right: Reizo Koike (Keio University), Breast Stroke.
Right Center: Tetsuo Hamuro (Nihon University), Breast Stroke.

Below: Masaji Kiyokawa (Tokyo College of Commerce), Back Stroke.



Below: Sunao Ishiharada (Meiji University), Middle and Long Distance.

Osaka Mainichi



Above: Kentaro Kawazu (Meiji University), Right and Kiichi Yoshida (Saeki Middle School), Left, Both Back Stroke.

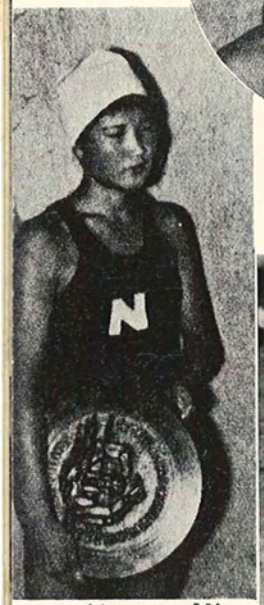
Yasuhiko Kojima (Shudo Middle School) Who Made a New Japanese Record in 200 Metres Back Stroke at the Swimming Events of the Meiji Shrine Games, October 1935. (*Asahi*)

Below: Miss Hideko Maehata (Sugiyama Women's College), Breast Stroke. (*Shimbun Rengo*)

Right: Soichiro Honda, (Rikkyo University), Long-Distance. (*Asahi*)

Right: Miss Hatsuko Morioka, Free Style. (*Asahi*)

Below: Left to Right: Misses Hideko Maehata, Breast Stroke; Yukie Arata, Free Style, Misao Yokota, Back-Stroke, Kazue Kojima (Sugiyama Women's College), Free Style. (*Shimbun Rengo*)



Above: Miss Tsuneko Furuta (Nakaizumi Girls' High School), Who Made a New Japanese Record in Women's 100 Metres Free Style at the Swimming Events of the Meiji Shrine Games, 1935. (*Asahi*)

Japan's Best Swimmers

By Zorai Kimura

Japanese speed swimming has shown great improvement, and new speed swimmers are being added year by year. The progress being made is so great that we do not know how far it has advanced.

At present the Japanese swimmers hold seven world records. Moreover, though it is not recognized officially, there are many who have made splendid records in long course pools which have not been equaled.

When we think of a world title holder, we imagine them to have a very fine physique, but the Japanese, as you know, is very small as compared to people of other nations. The few Japanese swimmers who hold world records are smaller than any one would believe. Shōzō Makino, who holds the world records of 400 metres and 800 metres races in free style, is only 5 feet, 1 inch in height and only 117 pounds in weight, and he holds a splendid record which will be hard to break even by a larger man. What does this mean? In fact, I feel, it tells that intense study bears a greater fruit even when the conditions are very bad.

One must know that the progress of a Japanese swimmer

is not accidental but is the result of the greatest effort. If one would adopt their method and follow their experiences or forms, then one will benefit by it.

Free Style

Example 1. Yasuji Miyazaki

At the 1932 Olympic Games in Los Angeles, Yasuji Miyazaki placed first by making a good record of 58.0 sec. for 100 metres free style. At that time he was only a boy of 15 years, but his form in swimming was praised by Mr. Weissmuller as a reappearance of Kahanamoku.

When he was a second year pupil of the Hamamatsu First Middle School, he came to Tokyo for his first swimming contest as a representative of his school. At that time he was so boyish no one guessed that he would become such a wonderful swimmer. But from the first, the beatings of his legs was very strong, and it seemed as if he swam only with his legs. The year before the Tenth Olympic Games he defeated Takaishi, who stood first in the Japanese swimming circle and became a star at one bound. He was chosen to represent the nation at the Olympiad.

The motion of his arms in swimming is slower, his head is held up very high and the beatings of his legs is very strong, as I said; therefore, his trunk rises to the surface of water and his back is always in sight. This form is most convenient for the action of the arms.

The real reason for his triumph is in the strength of his legs. When one watches him swim, it seems that the motion of his arms is too slow in contrast to his speed. His form is noticeably graceful.

He entered Keiō University in 1933 and stopped training in swimming because of ill health. After his recovery he started again. In the latter half of 1934, he appeared as a member of the relay team of Keiō and made a wonderful record of 25.6 sec. for the 50 metres lap. His record promises victory for Japan in the next Olympiad in Berlin. He has a full four years at the university. I am sure that he will prove to be a great success in the swimming world.

Example 2. Masanori Yusa

After Miyazaki fell ill, the record for 100 and 200 metres free style was held by Masanori Yusa.

He was born in Kagawa-ken in the Island of Shikoku, and at present is a freshman at the Nihon University. He is about 5 feet, 6 inches in height and 150 pounds in weight. He has a very fine physique as a swimmer. The motion of his arms is so swift and his breathing is so quick that his trunk receives no shaking. Moreover with the even beating of his legs, his form is one of the most reasonable.

His time is 57.2 sec. for 100 metres and 2 min. 11.2 sec. for 200 metres. Both are the world records for a pool 50 metres long.

His arms are recovered without waste, therefore there is little rolling in swimming with speed. His failing is that in the latter half of the race the strength of his legs weakens. At the next Olympiad in Berlin, he will compete with Miyazaki who has recovered. Both are youths of great promise.

Besides them, there are 100 metres racers whose time is less than 59 seconds; Yoshihisa Shimura, 58.6 sec., Masaharu Taguchi, 58.8 sec., Yasutarō Sakagami, Shigeo Takahashi and Shigeo Arai, 59 sec.

Example 3. Shozo Makino

Shōzō Makino is a graduate of Mitsuke Middle School of Shizuoka and is now a student of the Waseda University. From the time he was a third year pupil of the middle school, he made new Japanese records in the long distance race. In 1931, he broke the record made by Jean Taris of France for the 800 metres free style. Afterwards he competed with Taris for the record. In 1933, Makino was victorious with the record of 10 min. 08.6 sec. in the 800 metres, and in 1934 he made a record of 10 min. 01.2 sec., leaving Taris far behind. In 1935, he shortened his own record to 9 m. 55.8 sec. He also has the world record for 400 metres, which is 4 min. 46.4 sec. He also shortened this to 4 min. 45.4 sec. in 1935.

He, as I said before, is 5 feet, 1 inch in height. While in middle school he astonished every one who watched

his swimming, for he swam from beginning to end with the same rapid speed. In swimming the 1500 metres he uses the same high tempo as that for 100 or 200 metres events. The muscles of his shoulders have gradually become as strong as iron and his form is perfect with a balance of power.

Weissmuller called Makino's form "short-cut-stroke." The action of his arms from the time when his hands catches and through the pull, is the smoothest that has ever been seen. There is no retarding in his tempo that his arms come out like a machine that never stops, so it is not unreasonable that he is called, "a swimming machine." He perfected his swimming by training; his leg beating is without intermission; he makes use of the rolling of the body and he seems to have no feeling of weariness.

There is no one else who has swum in long distance races for so long a time. Long distance swimming needs strenuous training compared to other strokes. Therefore it is difficult for one to continue to keep himself at the top in this type of swimming for more than three years. But our Makino has been standing in the first line in the Japanese swimming circles for six years. He will probably make a much better record for himself during his four remaining years of college life.

Example 4. Kusuo Kitamura

Kusuo Kitamura was a pupil of the Kōchi Commercial

School. He won the 1500 metres race at the Los Angeles Olympic Games where he competed with outstanding swimmers although he was only a 14 years old boy. The beating of his legs is very strong but his arm stroke is slower than Makino's. Therefore his swimming is very smooth. He wanted to equal Arne Borg's record of 19 min. 7.2 sec., for the 1500 metres, but he could not reach that, his record being 19 min. 08.0 sec., But he made the new world record for the 1000 metres.

At present he is still in the adolescent stage and having grown too rapidly he had to change his form somewhat, so his real power in swimming weakened. But he is still in his teens and if he goes to the university he has a long school life of six years ahead of him. It is thought that then his swimming life will begin again.

Example 5. Hiroshi Negami

Hiroshi Negami was born in Hokkaidō and is now a student, 21 years old, of Rikkyō University. He has been a swimmer for some time. In 1934, he appeared like a comet in the long distance event and won from Makino and Jack Medica, America. He is a gentle youth who is fond of training and the result of his earnest training for years seems to have suddenly become effective so that he stands foremost in the Japanese swimming circles. His legs are very strong, but at one time, his breathing was very bad, and consequently his swimming could not improve. Afterwards he was

influenced by his friend and teammate, Sōichirō Honda, who has a very smooth form. By this influence, the tossing of his body caused by breathing was corrected and he improved greatly. In 1934, he came out like a new man and is now among the best in the Japanese swimming circles. And he has even surpassed the world's record for 1000 metres which was made by Kitamura. In 1935, he made national records in 300, 400 and 800 metres with the time 3 min. 32.0 sec., 4 min. 45.2 sec., and 10 min. 00.8 sec. respectively.

There are other long distance swimmers; Sōichirō Honda, and Sunao Ishiharada and in the middle distance, Rokuhei Shimma. They are all well known swimmers. Shimma holds the record for 200 metres in short distance course which is 2 min. 10.0 sec.

Back Stroke

Example 1. Masaji Kiyokawa

Masaji Kiyokawa is a graduate of Nagoya Higher Commercial School and is now a student at the Tokyo College of Commerce. He won the 100 metres back stroke race at the Los Angeles Olympiad.

He is 5 feet, 5½ inches in height and weighs 132 pounds. He is not an owner of a fine physique. His arms and legs are lengthy but their muscles are good; his arms, especially, are very strong. A strong point in his form is that his power is concentrated in his arms, with which

he skims the water and is very quick, beating the water with his strong legs. He holds the record for the 50 metres.

But he does not press down the water with his arms, for he concentrates all his power in quickening his arm movement, stroking very quickly. Since he won at the Los Angeles Olympic Games, his record has become worse. In 1934, he was beaten by Van de Weghe who came to Japan. However, he holds the record for the 400 metres back stroke.

Example 2. Kentaro Kawazu

Kentarō Kawazu took third place in the back stroke at Los Angeles. But in 1934, he became first in Japan because Kiyokawa and Iriye have gradually declined since the Olympic Games, Los Angeles.

He is 5 feet, 9 inches in height and is very thin. From the first his legs have been very strong, but the motion of his arms is very slow compared to the form of Kiyokawa. At present his timing is poorer for he has tried to move his arms more quickly, being influenced by Kiyokawa, and thus his stroke became short and the position of his head lowered. He is a student of Meiji University.

Example 3. Kiichi Yoshida

Kiichi Yoshida is a student of Saeki Middle School in Kyūshū. He is a new man coming out at a time when three Japanese Olympic champions have already gone

into decline. He is only a young boy, it is true, but he swims the 100 metres back stroke in 1 min. 11.2 sec. and has become the hope of all Japan in that stroke. In the All-Japan Swimming Championship Meet, 1934, he placed second being beaten by the American swimmer, Van de Weghe.

He does not even know the pace of racing well, and his form is very rough, but his energy is limitless. His tempo is slow, but the beating of his legs never wearies. He says he has never been tired out in a race. He is really a man full of promise for the future.

At the Second American-Japanese Swimming Meet he made a new Japanese record of 2 min. 35.6 sec. for the 200 metres.

Breast Stroke

Example 1. Reizo Koike

When Reizō Koike won second place at the Los Angeles Olympiad in 200 metres breast stroke, he was only a pupil at the Numazu Commercial School. After Yoshiyuki Tsuruta, who had won at Amsterdam and Los Angeles, retired from the swimming circles, Koike stepped up, for as a fact, he has great power.

At the Far Eastern Championship Games in 1934, he was defeated by Yldefonso, a Filipino, in the 200 metres breast stroke whose time was 2 min. 45 sec. Koike made the time of 2 min. 44.0 sec. in the trial heats but took

second place at the final. Afterwards he made it in 2 min. 43.0 sec., which is the best record in the world for a long course pool, and he occupies the first place among the world's best ten. In 1935, he made two Japanese records; 100 metres in 1 min. 13.0 sec. and 200 metres in 2 m. 41.2 sec.

His success is the result of his technique and not of his physique. There seems to be no one with such smooth stroke. His smoothness comes from his skilful arm movement. He stretches out his arms very smoothly and catches the water firmly and by pressing down the water prevents his body from tossing. His form of bringing his arm back to the breast after finishing the stroke, is at its height. We can find a fault in every one's form when we compare it with his.

Example 2. Tetsuo Hamuro

Koike was the only Japanese who formerly swam the breast stroke but now there is a new man, Tetsuo Hamuro. With his appearance the breast stroke circle has been enlivened.

He is a student in the preparatory course of the Nihon University. His time for the 200 metres breast stroke is 2 min. 42.4 sec. which is next to that of Koike. He is 5 feet, 9 inches in height. His arm stroke is large and the beating of his legs is very strong. He is an energetic swimmer. He possesses real power and can compete with Koike. He has one fault in the movement of his arms

which does not improve his tempo; his stroking is long because his arm movement is large, so he slows down after he finishes his stroke. At Berlin, he will probably offer the strongest competition to Koike.

Training and Coaching

By Takahiro Saito

Every swimmer has a special event of his own and it is his duty to do his utmost to make a good record in it on the day of the race. What kind of training should be given to enable him to win his event at the race? To make a good swimmer, one must first decide upon his schedule. This schedule should be varied according to the physical strength, aptitude and circumstances of each swimmer. A schedule is never effective and good in itself, unless each individual case is taken separately.

The schedule which the Amateur Swimming Federation of Japan adopted before the Los Angeles contest was, on the whole, very successful. The best candidates were picked the year previous to the Olympiad; boarded together twice a year, in winter and spring; kept in training; made friendly; studied their capabilities; and kept from over-working.

The summary of the schedule is as follows, but the reader will please keep in mind that this is a schedule for Japanese and that schedules vary according to nationalities and equipment.

Season-Off Training

The season-off in Japan is winter. Training can be kept up in indoor pools, where they are provided, but what should the majority of swimmers do who have no indoor pools in which to swim?

The main object during this season is to train in moderation, and by having supplementary sports to train the muscles and motor nerves, so that the contestants can greet the coming season full of vitality and with a fighting spirit. Why did the Japanese who found it difficult to swim during the five winter months show such progress? The reason is that they had enough rest. A day's training consists of land exercise (warming up), hard practice, cooling down and rest. We repeat this day by day, starting each day refreshed in spirit.

It is the same with the year's training. As summer is the racing season or time for hard practice, swimmers are more or less over-worked, and if he does not have rest out of season, though he can keep up with his time, he cannot improve. Is this not the reason, that while making good records in the indoor pools during the winter, the swimmers of the other countries do not show improvement in season? Japan naturally stresses the season-off and forces the swimmers to rest to store up energy for the next season which is one of the reasons for her rise.

Therefore it is better to stop swimming and spend the

winter (November to March) pleasantly, by substituting supplementary athletic sports (track and field), also land exercise, rope jumping and basket ball. There is nothing to fear, if one engages in proper sports during the winter, for he can get back into condition in ten days. It is possible for one to swim 200 metres without pain in water of 4° to 6° when continuing to swim during the winter. The writer kept up an all year round drill when he was an active swimmer. Records were quite good even in water of 4°, but when the effort involved in training was taken into consideration they were by no means satisfactory. It is best to stop training in an outdoor pool during winter time.

Cautions for Training Indoors

One must also be very careful when training indoors. There are many people who begin the season in good condition and get into a slump just when the season opens. But it is better to practice than not at all. And the winter training is very effective when it is done regularly.

1. To Master the Form.
   Usually a swimmer has not the time to acquire the proper technique during the summer. Therefore it is necessary to cultivate perfect form in this period by swimming about 800 metres lightly every day and by studying the method of turning.

2. Do not think of speed and practice with a light heart.
3. Make one's record time once a fortnight, and time the practice.
4. A day's schedule is: (a) 15 minutes preliminary sports; (b) 200 metres (warming-up) swim; (c) swim 800 or twice 400 metres (being careful of sprint, turning, form); (d) practice flutter kick for about 200 metres; (e) last 100 metres, cooling down, (take care to finish all this within an hour).
5. If one is tired of training, water polo will be good. One should spend the winter pleasantly and strengthen the body for swimming.

Training During Season

In April when the water warms to temperature from 16° to 19° the outdoor pools will be opened and the pleasant season starts. First, one must decide upon a rough plan for the contest in which he is to take part. Of course, if there is a coach one must obey him.

The most important point in making a schedule is to plan it according to the physical strength, capability, and environment of each swimmer. For instance, a fat man will not improve with light training, and if a thin nervous man has as much training as a fat man, he will be over-worked, and will be unable to get good results.

The higher school schedule and that of the middle school is not the same. And of course, sex makes a difference. If the contest is to be held in September, the writer believes the following method is the most effective, according to experience:

1. Preparation period from middle part of April to the middle of July.
2. Practice period from the middle of July to the end of August.
3. Finishing period from fifteen or twenty days before the contest.

In Japan, it was decided recently that the All-Japan Swimming Championship Meet be held during the summer vacation, about the middle of August. As most of the other meets are also held about the same time, it is important to plan the training very carefully so as to be able to practice most effectively and regularly for the coming season, because the time (duration) for preparation and training is cut short.

Training During the Preparation Period

This is the time allotted to accustom oneself to the water and for studying the form.

A. In order to become accustomed to the water, swim from 400 to 800 metres every day without paying attention to speed.

Be careful of the form. Make the basis of the form

by flutter kicking for about 400 metres. To swim too hard at the beginning of training is to set an incomplete form which cannot be corrected easily.

B. If there is a coach, ask him to point out all the defects in the form. There are some people who criticise their coach or even make fun of him, and give him virtually no credit when they make a good record. But of course, such persons and teams with such people on them can never succeed.

C. If there is no coach, correct one another. Ask a man who knows how to swim but cannot race to criticise the form. Such amateurs are sometimes very quick in noticing defects.

D. It is very necessary to participate in many water games during this period and to try to make oneself strong in the water. Some of the good exercises are: flutter kicking under water; plunging; water polo; races with just the flutter kick (in breast stroke just the leg movement); races with just the arm movement (not necessary in the back stroke); and a modified tug-of-war. In this tug-of-war, two swimmers push a stick with just the flutter kick and whoever is the stronger will move forward. If there are more than two, pair off, clasp hands lightly, dip the face in the water and push each other with just the flutter kick. When out of breath, lift the head and breathe, then continue. If the arms are not stiff, one can easily breathe. These exercises are

interesting and good for those who are praticing for a swimming race.

The same amount of training should be applied in indoor pools.

(1) Take rather strenuous preparative land exercises till one perspires (about 15-20 minutes.)
(2) 200 metres warming-up.
(3) 200 or 400 metres practice of the sprint.
(4) 800 or 1500 metres giving care to the form and turning.
(5) 25 metres start dash (5 to 10 times).
(6) 400 or 200 metres practice of leg movements only. It is interesting to make a table of trials.
(7) 200 metres cooling down.

If one has kept up the supplementary exercises during the winter and adopts the above method, one can regain the previous season's condition in about ten days. When the pace is restored, one should practice with a sprint even in the warm-up.

1. Take a time trial once a fortnight. When racing during this period, imagine that it is a practice, and do not get impatient even though the time is not good. If one has a good foundation the goal can be attained.

2. The quantity of exercise for the long distance, short distance, back stroke and breast stroke swimmers is the same in the beginning of the season. The short distance swimmers can perfect their form and add to

their endurance by swimming long distances and by the same method, the long distance swimmers will improve their sprinting by swimming short distance.

In the districts where there are no good coaches and if it is possible, it is important to employ an experienced coach, and ask him early in the season to explain the fundamental method of training and of teaching the general idea of the proper form; also have him set up a plan of training.

Hard Practice Period

This is a very important period for cultivating physical strength and technique. But if one practices unreasonably, the effects will be detrimental rather than helpful. Cautions to be taken are:

A. Exercise about 15 minutes when getting up and before going to bed.

B. Take enough exercise before practicing, to soften the muscles and joints, and to quicken the flow of blood.

C. One of the methods is to swim one's event at full speed as soon as jumping into the water. It may seem difficult at first, but after having enough preparatory exercises it will be fairly easy. However, if it becomes unbearable just swim about 15 metres easily.

It is very advantageous to be able to swim at full speed as soon as one jumps in, for in many races warming-

up in the water is not allowed. To try and warm-up by swimming slowly in cool water, will only lower the body temperature and waste strength. If one feels that warming-up is necessary during this period, dò it by light sprinting. This is where swimming differs from other sports. But the chief thing is to practice for a good time.

1. After a while, choose a race event and practice its pacing. It may be better to sprint a long distance event. And one should avoid swimming idly in long strokes.

2. Choose a day once a week for taking the racing time. One should be timed twice at intervals of half an hour. This is in preparation for racing twice a day. Swim with a strong spurt from the beginning. At first one will become fatigued after swimming only 75 metres out of 100 metres. If one repeats this every week and studies how to get in the best condition on the day for trials the time will be improved and he will be in best condition on the day of the meet. To swim carelessly on a day when in good condition without any schedule or timing, is not good for one may make a remarkable record when the race chances to be on the day when he is in condition, but if not, he may not get through even the preliminary races. Therefore take part in as many races as possible during this period. However do not think of the issue but always swim with one's own pace.

3. The long distance swimmers must add sprint training to their schedule. One must not fail to practice leg movement every day.

4. Do not practice too long at one time. Long practices, especially in the strong summer sunshine, fatigues the body and dulls the motor nerves which should be alert. Therefore one must finish training within an hour.

Sometimes there are coaches who think it is their duty to the school or institution to make the swimmers practice for a long time. But this is a great mistake for in the long run it makes the swimmers go stale.

5. Practice in the summer time during the morning and evening when it is cool.

6. There are times when one becomes over-worked no matter how careful he is of his training. At such times when one is over-worked, he feels dull and lacking in energy when he gets up; often have restless nights and perspires during the night; and gets so that he hates even the sight of water. If such conditions continue and grow in intensity, symptoms of beri-beri or heart trouble may develop. It is possible to pass through this stage with proper practice but there is danger of destroying the form so either restrain practice, give it up entirely or take a short trip. By customarily taking vitamin B, it will prevent fatigue.

The schedule for this period is as follow: As this

period is usually during the summer vacation, it is best to practice twice a day, in the morning and in the evening.

A. The training in the morning must be light

1. Rise at 8:30. 20 minutes supplementary exercise (exercise, broad jump, gymnastics, rope-jumping, exercise with Indian Club).
2. If boarding near the pool, swim 200 metres lightly.
3. Breakfast at 9:30.
4. Begin training at 10:30.
   (*a*) Preparative land exercise (10 minutes).
   (*b*) Practicing of sprint.
   Swim the event course continuously with an easy sprint. By this time one should swim with considerable speed. Of course it is best to swim the earlier half easily, picking up speed in the latter half.
   (*c*) The building up of endurance and the correcting of form.
   For short distance swimmers: Swim 800 metres taking care of turning and form.
   For long distance swimmers: Train by sprinting 400 metres.
   (*d*) 200 metres or 400 metres practice of leg movement.
   (*e*) 25 metres start dash (5 or 10 times, lightly.)
   (*f*) 200 metres cooling down.

Do all this in an hour and a half. Rest about 5 minutes.

B. Main training is in the afternoon

Begin at 4.

1. Training for speed. (Those who need warming-up to swim in pace are over-worked. Warming-up should not be longer than 50 metres.)
   If the swimmer specializes in 100 metres and 200 metres events, swim the 100 metres in the morning, and 200 metres in the afternoon with a sprint.
2. Group the long distance and short distance swimmers together and the breast stroke and back stroke swimmers in another and let them swim strenuously all together for 800 metres or 1500 metres. When there is no one who drops behind then the level of the team is raised.
3. Long distance swimmer should swim about 400 metres and short distance racer about 100 metres with speed. But they must not swim idly.
4. 25 metres start dash (within 14 seconds, about 15 times. Choose a judge and have him blow a whistle when 14 seconds have passed. If one has not been able to cover the 25 metres in that time try it over again until all are able to swim it easily in the 14 seconds.)
   Make a standard record for breast and back stroke, according to the team and as the team

improves, the time will be shortened.

5. Have a relay race (50 metres each).
6. Do not fail to have 400 metres or 200 metres leg exercise.
7. 200 metres cooling down.
8. Go to bed at ten.

The above is the schedule of the most important days of the week. (Tuesday, Wednesday, Thursday.)

As there are preparative and regulating exercises in a day's training, so there are also the same exercises in a week's training.

Monday, (in the morning, in the evening.)

(1) Preparative land exercise.
(2) 400 metres or 800 metres with light sprint.
(3) Technical practice of starting, turning.
(4) Do not take excessive exercise.

Tuesday, Wednesday, Thursday.

(1) Practice hard according to the schedule already given.
(2) Endeavor to make each stroke of the legs, more effective than the last.
(3) Swim 2000 metres in a day. Long distance swimmer should swim at least 3000 metres a day.
(4) Finish the practice within 1½ or 2 hours.
(5) Do not rest more than 10 minutes.

Friday, this is the time day.

(1) 100 metres race, twice, with an interval of about 20 minutes.
(2) Breast stroke: 100 metres and 200 metres.
(3) Long distance: 800 metres or 1000 metres with sprint from the beginning. Record the lap time and also study the pace.

Saturday, pleasant free practice.

(1) As the race draws near and if one has to take part in both the preliminary and semi-final races or two events also make a record of the time on this day.

Sunday, Rest.

Practice of the Finishing Period

These two weeks of boarding together are the most important weeks to get into good condition. We must make the swimmers ready for the meet. Though the time is very short yet, this period has the power to get the swimmers in their best condition or wear them out for the day of the meet.

There are cautions for this period:

A. To establish perfect team work.

One may think that team work is unnecessary as a swimming race is personal, but no great swimmer comes from a poor team. No one except a genius is able to swim a good race without the background of a good team. In the present day, when the races are usually between

teams it is important to have team work and team cooperation, thereby raising the level, than by a few outstanding swimmers. If there is a case where one of the swimmers leaves the team because of ill feeling, it has a bad influence on the others. And of course, it is worse when it is on the day of the meet. Every member of the team, to say nothing of the coach, should be very careful in practicing and must understand the importance of unification of the team.

B. Take rests rather than too hard a training.

In order to get good results with expectation of victory, one should have (1) Faith in one's own pace, (2) Courage during the race, (3) Familiarity with races, (4) A fresh and high fighting spirit.

However careful, one will soon become over-worked. So realize that it is necessary to take proper rest during this period. By having ample sleep; massaging before and after training; and resting before a race, one must work up a fighting spirit. If one lets down in the hard training season, he cannot get a good result by practicing hard all during this finishing period.

C. Remember the pace of the contest.

One should have practiced already for the race event but do not fail to try again so that he may develop reserve energy.

D. One should moderate his practice when he is in a bad condition.

If one makes no improvement before the race, it comes from want of practice or over-work. When it comes from over-work, one cannot have an unified form, however hard he practices. The more impatient he becomes the more he is apt to over-work and will fail in the end. Give up practicing for a few days and rest. When one recovers his spirits, the technique will be corrected naturally, and he will make good on the day of the race.

E. A coach must not correct one's form too much.

As the race draws near, the coach himself is apt to get excited and scold the swimmers about their form. This must be stopped for form cannot be corrected so soon. It will only put the swimmers in a low spirit and make them feel uneasy.

F. Regulate one's daily life and take care of the body.

This caution should always be taken by a swimmer but especially during this season.

Schedule of this season

1st day.

1. Preparative land exercise (15 minutes.)
2. 200 metres swim (everybody.)
3. 800 metres or 1500 metres (group the swimmers according to the race events, and have a demonstration. If this is well done, the team will have a good showing. This is to accustom the swimmers to the water.)

4. 25 metres start dash (10 times within 14 seconds.)
5. Relay race (50 metres each.)
6. 200 metres (leg movement practice.)
7. 200 metres (cooling down.)

2nd day.

Begin at 10. a.m.

1. Preparative land exercise.
2. Race event (twice, lightly, long distance swimmer 1500 metres to 800 metres every other day.)
3. 200 metres (on own race event.)
4. Start dash (5 times.)
5. Relay (once, 50 metres each.)
6. 200 metres (leg movement practice.)
7. 100 metres (cooling down.)

Begin at 4. p.m.

1. Preparative land exercise.
2. Race event (timing, long distance swimmer take time on the 3rd, and 6th day and make utmost effort on 200, 400 metres sprint on the other days.)
3. 400 metres (according to one's own race event.)
4. Start dash (5 to 10 times.)
5. Relay (50 metres each, sometimes the free style swimmers should have an 800 metres relay at the beginning of the practice.)
6. 200 metres (leg movement practice.)
7. 100 metres (cooling down.)

Those who cannot get their full speed pace from the beginning, should swim lightly before breakfast or 30 minutes before practice. But it is very necessary to practice so as to be able to swim one's race event without any warming-up.

3rd, 4th, 5th, 6th day.

Same as above. If by this time one's pace is not consistent, give up practicing till the day of the contest. If one is too tired and the afternoon's exercise is too hard, take a nap.

7th, 8th day.

Practice lightly. Be careful of the start and relay.

9th day, Rest.

Some coaches say that one should train hard, or his pace will not come up, but the writer believes nothing surpasses rest. Thus having gained self-confidence and firm belief in their capability, the team is ready for the contest.

G. Cautions for the night before and the day of the race.

1. Sleep is the best medicine. Most of the contestants are so excited that they cannot rest. So refresh oneself by bathing before going to bed, and sleep soundly in a quiet room. At times, if necessary, take a sleeping tablet.
2. Do not cool the body. Dress as usual. If one puts on more quilts or heavier clothing it will make him all the more restless.

3. Caution in eating is also very important, but it should not vary very much from the other days.
4. Take stimulants such as coffee or strong tea to give you energy and eat citrus fruits to soothe the nerves.
5. The oxygen inhalations which the Japanese swimmers took before the Olympic Games caused much discussion. It might be effective in recovering from exhaustion after the race, but the writer does not think it helps the racer much in making better records by taking the oxygen inhalations before the race. It only gives the swimmers a feeling of ease. Swimmers of the present day inhale fresh air with every stroke, so it is quite useless.
6. Before starting, massage and soften the muscles with preparative land exercise.
7. When starting, do not fear the rivals. No matter how large the swimmers may be on either side, wait for the starting signal assured that one can beat them by half a body's length. One cannot acquire this composure unless he has had experience in many races, but it is necessary to try to get himself in hand.
8. Do not look down on one's rivals too much for he might be caught in their traps. Even if it

is the trial heat, swim earnestly and with the best pace in order to produce a new record. Every race should be met seriously.
9. When beginning to feel strained, think of the rivals as also being tired and stick it out to the last.
10. Do nothing opposed to good sportsmanship, whatever happens.
11. Take care of the body. As soon as the race is over, massage with camphor rub, rest and recover from exhaustions, and wait for the next race.

Coaching

What kind of man is good for a coach, and what should a coach know?

1. Cultivate personality.

A single word, a single movement of the coach greatly influences the minds and movements of the swimmers. To build up a good swimmer who understands the noble spirit of sportmanship, the coach must be, first of all, a good sportsman himself. Do not forget that one cannot make a really great champion by teaching technique alone.

2. Love the swimmers.

Share their happiness and woe, and teach them kindly with earnestness that is neither too strict nor too gentle.

3. Create understanding and unity among the swimmers.

This is most important in leading a team. If the coach has character and ability worthy of their trust, the swimmers will naturally unite themselves. There are always a few among many swimmers who throw training into disorder or cause unpleasant feelings. It is the right of the coach to exclude those who do not train properly. Do not forget to clean up conditions which create unpleasantness in the training quarters.

4. Put up a plan of training for the race in which one is to participate.

In general, the swimmers are boyish and innocent, so they are apt to practice recklessly. Of course hard training that might lead into overwork is necessary sometimes, but a reckless training is not good. Make a reasonable schedule, and establish rules for daily life: as coach, one must see that the swimmers submit to those rules so that they will have a high spirit and strong physical power. The coach is responsible whether the swimmer is in the best or worst condition on the day of the contest.

5. Keep a training dairy.

If the coach is employed only for a time it is out of question, but if he is connected with the team, he should keep a training dairy, make a schedule for each swimmer for his race, write down the day's training and his records for future reference. For instance, if one knows

the average lap time of a 1500 metres swimmer, he can easily find out the pace of that swimmer on any given day by timing the 100 metres lap while he swims with a sprint. He can also find out how to plan a schedule so as to build up the swimmer into condition on the time day, therefore the swimmer can compete satisfactorily on the day of the meet. Some people study the rapidity of strokes, but this is quite unnecessary.

6. Do not fail to study aptitude.

Coaching should take into consideration the personality of the athlete, this is especially true in swimming. Always study the swimmers' character, temperament and capability and make a schedule in keeping with it.

What kind of constitution is best for swimming and how should swimmers choose their race events?

Youthful Swimmers. Why are youthful swimmers, those of the high school age, so good in swimming? It is because the unnecessary muscles are not yet developed and are able to move their joints very smoothly; because they have elasticity, for their muscles are slender and long; because they are not too fleshy to feel the resistance of the water on the abdomenal region; and moreover because their hearts and lungs are large and strong in proportion to their bodies. Therefore they do not feel any strain from hard training.

Thus the body of a boy of eighteen is naturally

given to swimming. Depending upon the coaches' leadership, such boys can be developed to make good records. But as they have not enough strength for short distance events, it is better to let them practice medium or long distance events.

Muscular Body. Those who have muscles like a wrestler, a boxer or a judoist are, in general, clumsy and do not have flexibility of muscles. Though they are very earnest in training, they have no speed. Their shoulders and joints will not move smoothly because unnecessary muscles are developed too much, therefore their swimming becomes strained. Such a body is not fit for swimming, water polo might be better for them. At a glance Yoshiyuki Tsuruta looks muscular, but his muscles are surprisingly soft, so one cannot decide by outward appearances only. Even those with hardened muscles can be developed into good swimmers by making their joints flexible and smooth with proper land exercises for two or three years.

Fat Man. The resistance of water increases with fatness. But such swimmer has physical strength in himself to make up the speed by hard training. To overcome resistance, he must depend upon the strength of a strong stroke, rather than upon rhythmical swimming. For this reason, swimmers like Takaishi and Yokoyama, who roll their bodies, stroke forcibly

and their flutter kick beat finishes simultaneously with their arm stroke. These swimmers would probably do better in the short distances than in the middle distance events.

Nervous, Thin Man. From the point of resistance of water, a thin man is most ideal, but usually he does not have the necessary physical strength. At first, these swimmers should be made to practice long or medium distance to build up endurance in the water. Train their bodies with land exercise and then change them into short distance swimmers. Under such conditions they are apt to become good swimmers.

I have roughly classed the swimmers according to their constitutions, but the coach should study each of the swimmers individually and place them in their right distance. There are also many ways of development seen from a technical point: those swimmers who advance rapidly; those who sometimes advance and then retard; those who do not develop at all during a certain period; and those who do not develop for a time and then make sudden progress, thus unless the coach is very careful there will be failure. Sensitive swimmers feel uneasy at a time when their friends are making progress while they are at a standstill. A coach must always study their conditions and feelings, encourage them, change their schedule if necessary and make them practice pleasantly and with an easy mind.

7. Fix the assembling time and begin the training together.

Any seemingly slight item of the day's schedule is a part of the whole training. Therefore if an athlete swims without any land exercises, he will feel the strain more than the other swimmers, and the development of his technique will also be effected. Moreover, if a swimmer rests all through the hard training period, and then begin training at the end, he can never hope for desirable results. Keep in mind that a good record on the day of the race is the result of a complete training.

8. Change their moods sometimes.

Swimmers will go through hard training if it is the order of their coach, but if they are kept at it every day, or are scolded too much as a result of the coach's earnestness, the swimmers will naturally overwork themselves or will feel a withering effect. There are those who look as if they are very strong because of their sunburnt bodies, but are in fact very weak in a contest due to that very reason.

9. Schedule must have variation.

Defects of swimmers should not be pointed out by word of mouth, but should be corrected naturally by change of schedule.

10. Do not make the athletes swim, when they are not feeling well.

When there is illness among the swimmers or if one of them is troubled or worried, give up training, because

they cannot get good results however hard they practice, as they cannot concentrate on swimming. A coach must find out the reason, and endeavor to make them easy of heart as quickly as possible.

11. Warning against overwork.

Overwork results in two ways, physical and mental. The earliest symptoms are cramps of the legs. If a swimmer gets into this condition, be very careful. If he feels a pain when his calf and thigh touch in bending his knees vigorously while doing the land exercises before training, it is because he is tired. This condition will become habitual, if it once occurs so, massage and rest while the trouble is slight.

12. Record trials on the time day.

Timing is very necessary in studying the swimmer's pace, therefore fix a time day and make the athletes swim even if their condition is not up to par. Plan the schedule towards the time day and if they do not make good records, change the schedule gradually considering the aptitudes of each swimmer so as to make it possible for them to be in their best condition on that day. If the coach times the swimmer on their race events or takes notes on ordinary days, it will only discourage them and check their development in the end. Therefore on these days judge their condition by their swimming or lap time and only time the flutter kick or the start dash.

13. Show the proper form by demonstration in the water rather than by explanations on land.

One demonstration in the water of the model form compared with the bad form is better than mere words to the inexperienced young athletes.

14. Teach the proper form and technique to each swimmer.

The coach should not force his form upon the swimmers for it may be best for him, but not always the best for those he is training.

15. The cause of defects and how to correct them.

(a) Stiff ankle. (b) The over-development and stiffness of the muscles of the shoulder. These are the most common defects. Begin the fundamental training as explained before.

16. Make the swimmers self-confident in racing.

The key to victory is coolness in racing and confidence in one's pace which is the outcome of reasonable training. However bold one may be, he cannot succeed with an incomplete training. And one cannot hope for good results even if he has set up a good record, if he has no courage. I think this is why swimmers who have been abroad once are very composed when racing. Make them participate in as many races as possible to gain courage. Of course, meets which disregard the rules are not advisable.

17. Hard practice immediately before the race is not good.

To make the swimmers who are in a slump practice hard is also bad. Modern sport must be founded on reasonable training.

18 Picking of swimmers.

There are many ways to choose swimmers for the race. But the two chief ways are the following:

A. About three days prior to the meet, hold a preliminary race under conditions similar to it and if possible, at the place where it is to be held and choose those swimmers who make good time. Those who are strong at this time will be strong on the day of the meet.

B. If the preliminary race is held way before the meet, do not depend too much upon the results but also take into consideration the constitution, physique and attitude toward training of the swimmers and select those who are outstanding. Of course, the swimmers who are to participate in the race must have the consent of the team.

One of the most important duties of a coach is to entrust the team to give whole-hearted support and encouragement their representative no matter who is chosen.

19. Cautions for expedition.

A. The whole party should be on friendly terms. Trips are apt to make the members sensitive so

that only one uncongenial person may make the whole party uncomfortable, destroy teamwork, and thereby cause failure.

B. Go to the locality of the meet and near the pool at least three days before the race.

C. Make the swimmers feel at ease as their condition will not change even if the pool is of different length to that which they have been accustomed.

D. Swimmers are very nervous and apt to be mastered by their feelings before a race. If they once think it is a very bad pool in which to swim they will be unable to make a good record. So a coach must be very careful even with his words.

E. When the contestants visit a new pool they forget their weariness from the journey and will want to swim for a long time out of curiosity. There are some swimmers who practice recklessly, and some because of uneasiness, others because of mere vanity wishing to display their swimming.

On the first day, accustom the swimmers to the pool by making the short distance swimmers swim about 200 metres and the long distance swimmers 400 metres all together. They should rest for the remainder of the day.

The second day; short distance swimmers should practice the sprint (start, turning, about 100 metres a little harder.) Long distance swimmers

should practice sprinting about 400 metres and a little starting and turning.

The third day; they may swim a little but make them rest and store up energy for the race.

F. On the night before the race, make the contestants sleep in a seperate and quiet room from the others who are not taking part in the race. (For further detail, see Schedule for finishing period, pages 217-9.)

20. Cautions for the day of the contest.

There is nothing further to mention, except do not worry the swimmers, make everything congenial and cooperate with the manager. Observe the rivals. Supply temporary distraction and encourage the swimmers not to fear the race. This is very important with inexperienced contestants.

21. The method of team instruction.

If one is the only coach for a school or a team he can exact obedience to a reasonable schedule. But he must be careful not to lengthen the practice time, nor have careless training, or permit disputes between the swimmers and himself, or among the swimmers themselves because it encourages too much familiarity.

22. When coaching by invitation.

This is very difficult because one has to get big results in about a week or ten days of training swimmers of whom he knows nothing. In general, he is engaged in

the hard training or the finishing period.

An instance of this case is: these teams come to the training period without good instruction or definite training method. The form of the swimmers of such teams are always bad, because they begin training at random; late comers jump into the pool without any land exercise; some even clash against each other in the water. There is no uniformity. In such cases, the most important thing is to make them practice regularly and establish a training principle for them. Teams without good coach go through their daily training with an uneasy mind.

Lengthen the intermission during training from land exercises through cooling down from 5 to 10 minutes, and use this rest period to show them the right form. Their form will improve greatly in about three days.

As for the training schedule, adopt the one explained before, modifying it to suit the swimmers. When each of them is accustomed to this training and comes to understand the spirit of it, give them their training schedule, which will enable them to practice effectively even after the coach leaves.

If the coach is invited just for the finishing period, he must be very careful, for this is an important period. He must at once make them all swim in their own way, and correct their defects. For instance, if they are in low spirits on account of reckless training during the

training period, make them give up their training and allow them to rest. A coach must not make them practice too much because he believes that to be his duty. On the contrary this will have a bad influence. Make them rest three or four days and cheer them up by telling some stories. This will improve their time in the race, and will do them no harm. If the coach should discover defects in the swimmers' form, do not scold them, but correct them by schedule as said before. If there are breast stroke swimmers who do not turn by touching with both hands but who do so in a slanting way, teach them how to turn by using the side of the pool. Or if the leg movement of the swimmers is not good, let them practice 100 metres of flutter kick. Making them practice regularly with fixed teamwork, should always be the rule for training.

JAPANESE NATIONAL SWIMMING RECORDS

MEN

FREE STYLE

Distance	Time	Holder	Team	Where Made	Length of Course	Date Made
50 Metres	25.8 s.	Shigeo Takahashi	Waseda Univ.	Tokyo	50 Metres	Sept. 1935
50 〃	25.8 s.	Masaharu Taguchi	Rikkyo Univ.	〃	〃 〃	Sept. 1935
100 〃	57.2 s.	Masanori Yusa	Nihon Univ.	〃	〃 〃	Sept. 1935
200 〃	2 m. 11.2 s.	Masanori Yusa	Nihon Univ.	〃	〃 〃	Aug. 1935
300 〃	3 m. 32.0 s.	Hiroshi Negami	Rikkyo Univ.	〃	〃 〃	Aug. 1935
400 〃	4 m. 45.2 s.	Hiroshi Negami	Rikkyo Univ.	〃	〃 〃	Aug. 1935
400 〃	4 m. 45.2 s.	Hiroshi Negami	Rikkyo Univ.	〃	〃 〃	Sept. 1935
400 〃	4 m. 45.4 s.	Shozo Makino	Waseda Univ.	〃	〃 〃	Sept. 1935
500 〃	6 m. 09.8 s.	Shozo Makino	Waseda Univ.	〃	〃 〃	Sept. 1935
800 〃	9 m. 55.8 s.	Shozo Makino	Waseda Univ.	〃	〃 〃	Sept. 1935
1000 〃	12 m. 41.8 s.	Hiroshi Negami	St. Paul Club	〃	〃 〃	Aug. 1934
1500 〃	19 m. 08.0 s.	Kusuo Kitamura	Kochi Com. School	〃	〃 〃	Aug. 1933

BREAST STROKE

100 Metres	1 m. 13.0 s.	Reizo Koike	Keio Univ.	Tokyo	50 Metres	Aug. 1935
200 Metres	2 m. 41.2 s.	Reizo Koike	Keio Univ.	Tokyo	50 Metres	Aug. 1935
200 〃	2 m. 42.4 s.	Tetsuo Hamuro	Nihon Univ.	〃	〃 〃	Sept. 1935
400 〃	6 m. 24.4 s.	Yoshiyuki Tsuruta	Japanese Team	〃	〃 〃	Oct. 1928
400 〃	5 m. 06.8 s.	Reizo Koike	Keio Univ.	〃	25 〃	Sept. 1933
500 〃	8 m. 30.8 s.	Yoshiyuki Tsuruta	Japanese Team	Osaka	50 〃	Sept. 1926
500 〃	7 m. 50.4 s.	Reizo Koike	Numazu Com. School	Tokyo	25 〃	April 1932

BACK STROKE

50 Metres	30.8 s.	Masaji Kiyokawa	Tokyo Col. Com.	Tokyo	50 Metres	Sept. 1933
100 〃	1 m. 08.6 s.	Masaji Kiyokawa	Japanese Team	Los Angeles, U.S.A.	〃 〃	Aug. 1932
200 〃	2 m. 35.2 s.	Kiichi Yoshida	Saeki Middle School	Tokyo	〃 〃	Aug. 1935
200 〃	2 m. 35.2 s.	Masaji Kiyokawa	Nagoya Higher Com.	Nagoya	25 〃	Sept. 1932
200 〃	2 m. 35.4 s.	Yasuhiko Kojima	Shudo Middle School	〃	50 〃	Oct. 1935
400 〃	5 m. 30.4 s.	Masaji Kiyokawa	Tokyo Col. Com.	Tokyo	〃 〃	Oct. 1933

RELAY

200 Metres	1 m. 46.0 s.	K. Takemura Y. Shimura Y. Sakagami S. Takahashi S. Arai	Waseda U. Team	Tokyo	50 Metres	Sept. 1935

400 Metres	3 m. 55.6 s.	Y. Shimura R. Hirano M. Yusa	Japanese Team	Tokyo	50 Metres	Aug. 1935
800 〃	8 m. 52.2 s.	M. Yusa S. Ishiharada S. Makino H. Negami	Japanese Team	〃	〃 〃	Aug. 1935
300 〃 Medley	3 m. 20.8 s.	K. Yoshida R. Koike M. Yusa	Japanese Team	〃	〃 〃	Aug. 1935

WOMEN

FREE STYLE

50 Metres	31.6 s.	Hatsuo Matsuzawa	Osaka Swim. Team	Osaka	50 Metres	Aug. 1933
100 〃	1 m. 14.6 s.	Tsuneko Furuta	Nakaizumi Girls' H.	Tokyo	〃 〃	Oct. 1935
100 〃	1 m. 14.6 s.	Kazue Kojima	Chubu Team	〃	〃 〃	Aug. 1935
100 〃	1 m. 13.4 s.	Kazue Kojima	Sugiyama Team	〃	25 〃	Oct. 1933
200 〃	2 m. 45.0 s.	Kazue Kojima	Sugiyama Girls' S.	Nagoya	50 〃	July 1933
200 〃	2 m. 42.8 s.	Kazue Kojima	Sugiyama Girls' S.	〃	25 〃	July 1933
300 〃	4 m. 22.6 s.	Hatsuko Morioka	Seibu Team	Tokyo	50 〃	Aug. 1935
400 Metres	5 m. 53.0 s.	Kazue Kojima	Sugiyama Girls' S.	Nagoya	50 Metres	Aug. 1933
400 〃	5 m. 49.6 s.	Kazue Kojima	Sugiyama Girls' S.	〃	25 〃	Aug. 1933
500 〃	7 m. 44.8 s.	Hatsuko Morioka	Ibaraki Swim. Team	Osaka	50 〃	July 1933
500 〃	7 m. 35.6 s.	Hatsuko Morioka	Ibaraki Swim. Team	Tokyo	25 〃	Oct. 1933
800 〃	12 m. 31.8 s.	Hatsuko Morioka	Ibaraki Swim. Team	Osaka	50 〃	July 1935
1000 〃	15 m. 57.0 s.	Hatsuko Morioka	Ibaraki Swim. Team	〃	〃 〃	July 1933
1500 〃	24 m. 08.6 s.	Hatsuko Morioka	Ibaraki Swim. Team	〃	〃 〃	July 1933

BREAST STROKE

50 Metres	40.6 s.	Hideko Maehata	Sugiyama Girls' S.	Nagoya	50 Metres	June 1935
100 〃	1 m. 25.7 s.	Hideko Maehata	Sugiyama Girls' S.	〃	〃 〃	July 1935
200 〃	3 m. 02.8 s.	Hideko Maehata	Sugiyama Girls' S.	〃	〃 〃	Sept. 1934
200 〃	2 m. 00.4 s.	Hideko Maehata	Sugiyama Girls' S.	Tokyo	25 〃	Sept. 1933
400 〃	6 m. 37.6 s.	Hideko Maehata	Sugiyama Girls' S.	Nagoya	50 〃	Aug. 1933
400 〃	6 m. 24.8 s.	Hideko Maehata	Sugiyama Girls' S.	Tokyo	25 〃	Oct. 1933
500 〃	8 m. 03.4 s.	Hideko Maehata	Sugiyama Girls' S.	〃	〃 〃	Oct. 1933

BACK STROKE

50 Metres	39.4 s.	Misao Yokota	Kyoto Butoku	Osaka	50 Metres	Aug. 1933
100 〃	1 m. 25.1 s.	Misao Yokota	Japanese Team	Los Angeles, U.S.A.	〃 〃	Aug. 1932
200 〃	3 m. 10.4 s.	Misao Yokota	Kyoto Butoku	Hyogo	〃 〃	Sept. 1933

RELAY

200 Metres	2 m. 19.4 s.	M. Taniguchi Y. Arata K. Yokoi K. Sakurai	Kyoto Team	Nagoya	50 Metres	June 1935
400 〃	5 m. 06.7 s.	K. Kojima M. Yokota H. Morioka Y. Arata	Japanese Team	Los Angeles, U.S.A.	〃 〃	Aug. 1932
300 〃 Medley	4 m. 13.4 s.	S. Kitajima H. Maehata K. Kojima	Chubu Team	Tokyo	〃 〃	Aug. 1935

AMONG THE WORLD'S BEST SWIMMERS

1. John Weissmuller, U.S.A., Free Style. (*Asahi*)
2. Jean Taris, France, Free Style.

3. Arne Borg, Sweden, Free Style. (*Dentsu*)
4. Erich Rademacher, Germany, Breast Stroke. (*Dentsu*)
5. Ernst Sietas, Germany, Breast Stroke.
6. J. Cartonnet, France, Breast Stroke. (*Dentsu*)

7. Adolph Kiefer U.S.A. Back Stroke. (*Dentsu*)
8. Andrew Charlton, Australia, Free Style. (*Wide World Photos*)

9. Ralph Flanagan, U.S.A., Free Style. (*Asahi*)

10. Albert Van de Weghe, U.S.A., Back Stroke.

11. Left to Right: James Gilhula, Free Style; Marshall Wayne, Platform Diving Champion; Jack Medica, Free Style; all of U.S.A.

12. Peter Fick, U.S.A., Free Style. (*Asahi*)

1. Women's Relay Team of Washington Athletic Club, Seattle, U.S.A. Left to Right: Misses Mary Lou Petty, Doris Buckley, Olive McKean, Betty Lea. (*Associated Press*)

2. Miss Yvonne Godard, France, Free Style. (*Wide World Photos*)

3. Mrs. Eleanor Holm Jarret, U.S.A. Back Stroke. (*Times Wide World Photos*)

4. Miss W. den Ouden, Holland, Free Style. (*Trampus et Kol*)

5. 300 Metres Medley Relay Team of Women's Swimming Association, New* York, U.S.A. Left to Right: Erna Kompa, Judith Fowler, Dorothea Dickinson.

6. Miss Lenore Kight, U.S.A., Free Style.

7. Miss Helene Madison, U.S.A., Free Style. (*Dentsu*)

8. Front Row, Left to Right: Misses Alice Bridges, Back Stroke; Olive McKean, Free Style; Lenore Kight, Free Style; Rear Row: Ann Govednik, Breast Stroke; Katherine Rawls, Spring Board Diving Champion. (*Times Wide World Photos*)

WORLD'S BEST SWIMMING RECORDS

MEN

Distance	Time	Holder	Nation	Where Made	Length of Course	Date Made
100 Metres	56.8 s.	Peter Fick	U.S.A.	New Haven, U.S.A.	25 Yards	Mar. 1934
200 "	2 m. 08.0 s.	John Weissmuller	U.S.A.	Ann Arbor, U.S.A.	" "	Apr. 1927
300 "	3 m. 24.4 s.	J. R. Gilhula	U.S.A.	Detroit, U.S.A.	" "	Aug. 1933
400 "	4 m. 46.4 s.	Shozo Makino	Japan	Tokyo	50 Metres	Aug. 1933
500 "	5 m. 57.8 s.	Jack Medica	U.S.A.	Seattle, U.S.A.	25 Yards	June 1933
800 "	10 m. 01.2 s.	Shozo Makino	Japan	Tokyo	50 Metres	Sept. 1934
1000 "	12 m. 41.8 s.	Hiroshi Negami	Japan	Tokyo	" "	Aug. 1934
1500 "	19 m. 07.2 s.	Arne Borg	Sweden	Bologna, Italy	" "	Sept. 1927
BREAST STROKE						
100 Metres	1 m. 12.4 s.	J. Cartonnet	France	Paris, France	25 Metres	Feb. 1933
200 "	2 m. 42.4 s.	Ernst Sietas	Germany	Düsseldorf, Germany	" "	Mar. 1935
400 "	5 m. 50.2 s.	Erich Rademacher	Germany	New Haven, U.S.A.	25 Yards	Mar. 1926
500 "	7 m. 33.1 s.	P. Schwartz	Germany	Braunschweig, Germany	25 Metres	Jan. 1933
BACK STROKE						
100 Metres	1 m. 08.2 s.	George Kojac	U.S.A.	Amsterdam, Holland	50 Metres	Aug. 1928

200 〃	2 m. 32.2 s.	George Kojac	U.S.A.	New Haven, U.S.A.	25 Yards	June 1930
400 〃	5 m. 30.4 s.	Masaji Kiyokawa	Japan	Tokyo	25 Metres	Sept. 1933

RELAY

800 Metres	8 m. 58.4 s.	Y. Miyazaki M. Yusa H. Toyota T. Yokoyama	Japanese Team	Los Angeles, U.S.A.	50 Metres	Aug. 1932

† Editor's note: In the Breast Stroke, J. Cartonnet, France, made a new record of 2 m. 39.6 s. in 200 metres; in the Back Stroke, Adolph Kiefer, U.S.A. made new records in the following: 100 metres in 1 m. 06.2 s. at Berlin and 1 m. 04.9 s. at Breslau, Germany, 200 metres in 2 m. 27.4 s. at Budapest, and 400 meters in 5 m. 17.8 s. at Copenhagen; Shozo Makino, Japan, made a new record of 9 m. 55.8 s. in 800 metres Free Style at Tokyo; and Japanese Team made a record of 8 m. 52.2 s. for the 800 metres Free Style Relay; all of which were made this year, but formal notification that they have been passed by the Internaional Amateur Swimming Federation has not been received by the N.S.R. (Dec. 1935)

WOMEN

FREE STYLE

100 Metres	1 m. 04.8 s.	W. Den Ouden	Holland	Rotterdam, Holland	25 Metres	Apr. 1934
200 〃	2 m. 28.6 s.	W. Den Ouden	Holland	Rotterdam, Holland	〃 〃	May 1933
300 〃	3 m. 58.0 s.	W. Den Ouden	Holland	Rotterdam, Holland	〃 〃	Oct. 1933
400 〃	5 m. 16.0 s.	W. Den Ouden	Holland	Rotterdam, Holland	〃 〃	July 1934

500 Metres	6 m. 48.4 s.	W. Den Ouden	Holland	Rotterdam, Holland,	25 Metres	May 1935
800 〃	*11 m. 44.3 s.	Lenore Kight	U.S.A.	Jones Beach, U.S.A.	55 Yards	July 1933
1000 〃	14 m. 44.8 s.	Helene Madison	U.S.A.	New York, U.S.A.	〃 〃	July 1931
1500 〃	23 m. 17.2 s.	Helene Madison	U.S.A.	New York, U.S.A.	〃 〃	July 1931

BREAST STROKE

100 Metres	1 m. 24.5 s.	H. Hölzner	Germany	Copenhagen, Denmark	25 Metres	Jan. 1935
200 〃	3 m. 00.4 s.	Hideko Maehata	Japan	Tokyo	〃 〃	Sept. 1933
400 〃	6 m. 24.8 s.	Hideko Maehata	Japan	Tokyo	〃 〃	Oct. 1933
500 〃	8 m. 03.8 s.	Hideko Maehata	Japan	Tokyo	〃 〃	Oct. 1933

BACK STROKE

100 Metres	1 m. 16.8 s.	R. Mastenbroek	Holland	Düsseldorf, Germany	25 Metres	Nov. 1934
200 〃	2 m. 49.6 s.	R. Mastenbroek	Holland	Amsterdam, Holland	〃 〃	Jan. 1935
400 〃	6 m. 05.0 s.	R. Mastenbroek	Holland	Basel, Switzerland	〃 〃	Apr. 1935

RELAY

400 Metres	4 m. 33.3 s.	J. Selbach A. Timmermans R. Mastenbroek W. Den Ouden	Holland	Rotterdam, Holland	25 Metres	Apr. 1934

*Salt Water.

† Editor's Note: In the 300 metres Free Style, Miss W. Den Ouden, Holland, renewed her own record with the time of 3 m. 50.4 s. at Copenhagen, September 1935.

OLYMPIC GAMES SWIMMING RECORDS

MEN

EVENT	HOLDER	NATION	RECORD	WHERE MADE
100 Metres Free Style	Yasuji Miyazaki	Japan	58.0 s. (Heat)	Los Angeles, 1932
400 Metres Free Style	Clarence Crabbe	United States	4 m. 48.4 s.	Los Angeles, 1932
1500 Metres Free Style	Kusuo Kitamura	Japan	19 m. 12.4 s.	Los Angeles, 1932
200 Metres Breast Stroke	Reizo Koike	Japan	2 m. 44.9 s. (Heat)	Los Angeles, 1932
400 Metres Breast Stroke	W. Bathe	Germany	6 m. 29.$\frac{3}{5}$ s.	Stockholm, 1912
100 Metres Back Stroke	George Kojac	United States	1 m. 08.2 s.	Amsterdam, 1928
800 Metres Free Style Relay	Y. Miyazaki M. Yusa H. Toyota T. Yokoyama	Japan	8 m. 58.4 s.	Los Angeles, 1932

WOMEN

100 Metres Free Style	Helene Madison	United States	1 m. 06.8 s.	Los Angeles, 1932
300 Metres Free Style	Ethelda Bleibtrey	United States	4 m. 34.0 s.	Antwerp, 1920
400 Metres Free Style	Helene Madison	United States	5 m. 28.5 s.	Los Angeles, 1932
100 Metres Back Stroke	Eleanor Holm	United States	1 m. 18.3 s. (Heat)	Los Angeles, 1932
200 Metres Breast Stroke	Clare Dennis	Australia	3 m. 06.3 s.	Los Angeles, 1932
400 Metres Free Style Relay	J. McKim, H. Johns E. Garatti Saville H. Madison	United States	4 m. 38.0 s.	Los Angeles, 1932

COMPARISON OF RECORDS

EVENTS	WORLD		JAPANESE		OLYMPIC	
MEN	Holder	Time	Holder	Time	Holder	Time
100 Metres Free Style	Peter Fick, U.S.A.	56.8s.	Masanori Yusa	57.2s.	Yasuji Miyazaki, Japan	58.0s.
400 Metres Free Style	*Jack Medica, U.S.A.	4m. 38.7s.	Hiroshi Negami	4m. 45.2s.	Clarence Crabbe, U.S.A.	4m. 48.4s.
1500 Metres Free Style	Arne Borg, Sweden	19m. 07.2s.	Kusuo Kitamura	19m. 08.0s.	Kusuo Kitamura, Japan	19m. 12.4s.
200 Metres Breast Stroke	*J. Cartonnet, France	2m. 39.6s.	Reizo Koike	2m. 41.2s.	Reizo Koike, Japan	1m. 44.9s.
100 Metres Back Stroke	*Adolph Kiefer, U.S.A.	1m. 04.9s.	Masaji Kiyokawa	1m. 08.6s.	George Kojac, U.S.A.	1m. 08.2s.
800 Metres Relay	Yusa, Ishiharada, Makino, Negami — Japan*	8m. 52.2s.	Yusa, Ishiharada, Makino, Negami	8m. 52.2s.	Miyazaki, Yusa, Toyota, Yokoyama — Japan	8m. 58.4s.
WOMEN						
100 Metres Free Style	W. Den Ouden, Holland	1m. 04.8s.	Tsuneko Furuta	1m. 14.6s.	Helene Madison, U.S.A.	1m. 06.8s.
400 Metres Free Style	W. Den Ouden, Holland	5m. 16.0s.	Kazue Kojima	5m. 53.0s.	Helene Madison, U.S.A.	5m. 28.5s.
100 Metres Back Stroke	R. Mastenbroek, Holland	1m. 16.8s.	Misao Yokota	1m. 25.1s.	Eleanor Holm U.S.A.	1m. 19.4s.
200 Metres Breast Stroke	H. Maehata, Japan	3m. 00.4s.	Hideko Maehata	3m. 00.4s.	Clare Dennis, Australia	3m. 06.3s.
400 Metres Relay	J. Selbach, A. Timmermans, R. Mastenbroek, W. Den Ouden — Holland	4m. 33.3s.	Kojima, Yokota, Morioka, Arata	5m. 06.7s.	Mckim, Johns, Saville, Madison — U.S.A.	4m. 38.0s.

*Editor's Note: Formal notification of these records' acceptance by the International Amateur Swimming Federation has not been received by the N.S.R. as yet. (Dec. 1935)

Among the Contributors

Zorai Kimura

is a graduate from the Waseda University as is Katsuo Takaishi, and was a back stroke swimmer. He took part in the Olympic Games in 1928 at Amsterdam, and joined an expedition to Hawaii.

Now, he is a writer for the Shimbun Rengo. He is also a swimming critic.

Masaji Kiyokawa

came out into the limelight in the American-Japanese Swimming Meet in 1931, the year previous to the Tenth Olympic Games at Los Angeles. He also made a new world record in the 100 metres back stroke at the Tenth Olympiad.

He became a swimmer when he was a pupil of middle school. He won his place among the world's swimmers while at the Nagoya Higher Commercial School. At present, he is attending the Tokyo College of Commerce. Between last year and this year, he went to Australia and coached many swimmers there in the Japanese style swimming.

He has a resolute character and is rather reticent but has a great popularity.

Miss Hideko Maehata,

besides being supreme in Japanese women's swimming, is foremost in the world for women's breast stroke swimming.

She is a student of Sugiyama Women's College in

Nagoya. She had initially gone to the contest in Hawaii and then had participated in the Tenth Olympic Games at Los Angeles where she won the second place in 200 metres breast stroke. She is resolved that at the next Olympiad in Berlin, she will win first place.

Her swimming is novel among Japanese women, her arms are strong, as it should be, for she has an excellent physique. Since she was thirteen years old, she has appeared in women's swimming contests, and every year she has renewed her own record. At present she holds three world records.

Shozo Makino

is one of Japan's greatest hopes in the next Olympic Games in 1936, because of his excellent health.

At the last Los Angeles Olympiad, 1932, he was defeated by Kitamura in the 1500 metres but he has improved. Now, he has two national records, one is 4 min. 46.4 sec. in the 400 metres race, and the other, 10 min. 1.2 sec. in the 800 metres race, and in 1935 he renewed the latter with the time of 9 min. 55.8 sec. He has a Japanese record in the 500 metres of 6 min. 9.8 sec., and also a splendid record in 1500 metres.

He is twenty years of age, and a student at the Waseda University. He weighs 117 pounds and is 5 feet, 1 inch tall, therefore, his body is rather small for swimming. But, we must duly appreciate his fine fighting spirit, full ambition and eagerness to win the world's record in spite of a rather small body. This fact shows that it is not necessary to have a body of perfect measurements in order to become good swimmers. The success of swimmers depend upon their training and upon

the coach. Makino has a good and gentle nature, and is a diligent student.

Baron Masao Matsunaga

was born in Kumamoto, in the Island of Kyūshū, where swimming as a military art has flourished since the olden days. There, he went swimming with his father since he was five or six years old.

But it was not until 1895 that he formally began to learn how to swim at the swimming department of the Nippon Taiiku Kai (Japan Physical Education Society), of Hamachō, Tokyo. Among the forms that he learned were: Mukai Ryū, Suifu Ryū, and Kobori Ryū.

Baron Matsunaga has taught swimming from about twenty years of age at the Chiba and Miyagi secondary schools and also at the Military Academy.

The reason for Baron Matsunaga's earnestness in learning and teaching swimming is because his younger brother was drowned while taking swimming exercises at the Sendai Local Military Cadet School. As a memorial to his brother, Baron Matsunaga is endeavoring to teach swimming so that there will be no one not knowing how to swim in Japan.

Since 1918 foreign style of swimming has influenced Japanese swimming and has turned it from the traditional swimming to a racing and competitive sport.

As there is danger of the old traditional swimming as a military art being forgotten, Baron Matsunaga created the Nippon Yūei Remmei (Japanese Amateur Classical Swimming Federation in 1925 with others of similar opinion. The followers of the various schools of Samurai

styles of swimming are members of the league which is interested in developing and spreading the traditional Japanese swimming.

Baron Matsunaga is training swimming coaches mainly now.

Ikkaku Matsuzawa

is the noted honorary coach who led the Japanese swimming team to victory in the Tenth Olympic Games at Los Angeles. For nearly ten years of his student life, while attending the Tokyo First Middle School, the First Higher School and the Imperial University of Tokyo, he was active as a swimmer of the first rank in Japan. At first, he was a champion of the short distance races, but gradually changed into a long distance swimmer. Incidentally, his beautiful form was the object of great admiration. In 1921, while a student at the First Higher School, he was instrumental in forming the Nippon Intercollegeate Swimming Association as its promoter and executer.

In those days as there were no suitable pools in Japan, the swimming meets were held in the seas or lakes. When the First Higher School sent their champions to the intercollegiate games, there was only one, Matsuzawa, who was able to offer competition to the others, as there were so few outstanding ones. It is quite appropriate then that he, who suffered such inconveniences and who created the league with very little help, should become the leader of Japanese swimming.

For some time after graduation from the Imperial University, he did not appear actively in swimming associations, but occupied himself with the business and

organization of the Amateur Swimming Federation of Japan. In the year 1929, when for the first time the Japanese girls' swimming team went on an expedition to Hawaii, he went along as their coach. As a result of this trip, he formally became a coach although, previous to that time, he had often taught students and also swimming teams from every part of Japan.

He is kind-hearted and courteous; and it is recognized by all that his swimming form itself is graceful.

This girls' team was the first expedition from Japan to participate in a swimming contest in Hawaii and Mr. Matsuzawa was greatly responsible for its success as was the brilliant work of Miss Hideko Maehata. After that the Japanese swimming team prepared itself for the Olympic Games in Los Angeles. Mr. Matsuzawa was immediately appointed as coach, and he with his assistant, Kazuo Noda, made every effort to develop a winning team.

In 1931, the N.S.R. welcomed American teams to Japan and defeated them. Encouraged by such contests, they easily became the victors at the Tenth Olympiad. At that time Mr. Matsuzawa resolved on different tactics with regards to coaching the team. He undertook a strict system of training according to army discipline. He made them lead a systematical life. It is said that the reason for Japan's victory in America is the strict and systematic coaching of Mr. Matsuzawa. At the forthcoming Eleventh Olympiad in Berlin, he will unquestionably appear as the coach.

His major characteristics are prudence and frankness. And now, he is giving self-sacrificing devotion to the swimming federation. One can seldom find as fine a coach as this.

Yasuji Miyazaki

won the victory in the 100 metres free style swimming in the Los Angeles Olympic Games. He is one of the world's foremost short distance racers. In 1934, as he impaired his health, he rested for a year from exercises and games, in order to recuperate for the coming Olympiad in Berlin, 1936. He is very careful of his condition and having a deeply-rooted endurance, checked himself from displaying his ability. But lately, as he has recovered his health, he has been exercising diligently and will appear in the Olympic Games, and no doubt, in the preliminary swimming meets before Berlin. We cannot say anything about his condition lately but his speed is just the same as before. He is a student of the Keiō University.

Shigeo Sagita

was the first to advocate the Nippon Intercollegiate Swimming Association in 1921, and has been exerting himself in the Japanese swimming world greatly. Now, he is the sport's reporter for Nippon Shimbun Remmei, and besides this, he is the editor of "Baseball," a magazine.

Takahiro Saito

was a free style swimmer in 100 and 1500 metres races in the early days of swimming in Japan. Afterwards he began to practice the 100 metres back stroke. At the Eighth Olympic Games, Paris, 1924, he placed sixth in the 100 metres back stroke race with the record of 1 min. 19.8 sec.

In 1925, as the Captain of the Nippon Swimming

delegates, he went to Hawaii, and the next year, 1926 he went to Australia with Takaishi, one of the famous swimmers and showed glorious results there.

From February to November, 1935, he was engaged as a swimming coach to Brazil, appointed by the Amateur Swimming Federation of Japan, and endeavored to improve Brazilian swimming and has made remarkable progress. So much improvement has been shown, that one of the swimmers shortened his own record time about two minutes in the 1500 metres race. Saitō gained credit with the public as a great coach.

Since he is a back stroke swimmer, and was formerly an expert in long distance swimming, he understands all the styles of swimming. He is prominent as coach in swimming. It is splendid that he, when he trains swimmers, reforms and corrects their bad habits very kindly showing each one his faults.

Saitō is a graduate of the Rikkyō University, and now is a sports writer on swimming for the Osaka Mainichi and the Tokyo Nichi-Nichi.

Katsuo Takaishi

is the first swimmer who made Japanese swimming internationally popular. At the Eighth Olympic Games, Paris, 1924, he was fifth in both the 100 metres in 1 min. 03.0 sec., and the 1500 metres in 22 min. 10.8 sec. This was the first time that a Japanese swimmer succeeded in placing in the Olympic Games.

In the Ninth Olympiad, Amsterdam, 1928, he competed as the captain of the Japanese swimming team. He swam the 100 metres in 1 min. flat, and was third after Weissmuller and Barany. He also took part in the

1500 metres, but gave up before the end.

Takaishi took part as the captain of the swimming team in 1932, at the Tenth Olympic Games, Los Angeles. But at that time he did not compete in the races, because of his health and because there were many swimmers who made better records than he. So he worked hard as a member of the coaching staff in order to get the Japanese team in condition to win.

There are only a few swimmers who have competed in the Olympic Games three times as he has. His record improved year after year, making a new record every year for about ten years. This proves how diligently he practiced his swimming and exerted himself to improve the swimming in Japan. He swam both the 100 metres and the 1500 metres free style, but his favorite race was the 100 metres and, in the days when he was in best condition, he established a record of 58.6 sec. which no one in Japan could break for a long time.

He is a graduate of Waseda University and is twenty-nine years old. He took part in the Paris Olympic Games when he was ninteen years of age, and swam in his first Japanese contest when he was fifteen years old, a pupil at the Ibaraki Middle School.

He competed not only in the Olympic Games but in Far Eastern Championship Games several times, and always placed first in the 100 metres race. He also visited Hawaii and Australia where he exhibited his swimming and tried to introduce Japanese swimming.

Now, his life as a champion being over, he is devoting his time and energy to coaching the juniors in Osaka. He is 5 feet, 8 inches tall, weighs 148½ lb. and has a perfect body for swimming.

Yoshiyuki Tsuruta

was the first Japanese to win a championship in an Olympic swimming contest. He won the 200 metres breast stroke at the Ninth Olympic Games held in Amsterdam, 1928 making the Olympic record of 2 min. 48 sec., his usual record.

Next, at the Los Angeles Olympic Games in 1932, Tsuruta again won the championship in the 200 metres breast stroke with 2 min. 45.4 sec. and again renewed the Olympic record. At that time he was 30 years old, 5 feet, 7 inches in height, and 160 pounds in weight.

In swimming it is said that the prime of life is from 17 to 23 or 4, when the body is strongest. Most of the Japanese champions are young, so a champion, who made such a great record in middle age as he did, is very rare. It is very unusual for one person to win the championship twice at the Olympic Games, but he did so, and he is in high spirits as he grows older. His energy is hopeful. But now he has withdrawn from competition and has taken charge of the Nagoya Swimming Pool.

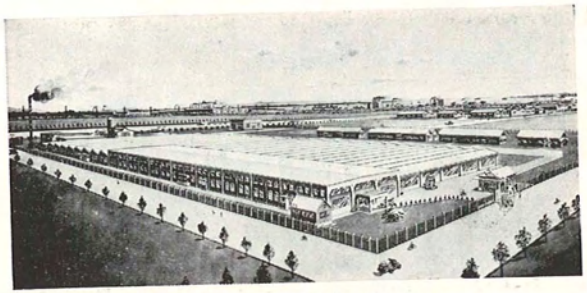
Primarily he learned the Japanese classic style of swimming. When he was in the Saseho Naval Station as a sailor, he appeared in the All-Japan Swimming Championship Meet and was recognised. From that time he devoted himself to breast stroke. After he finished his military service, he entered Meiji University and applied himself to his studies.

Not only did he take part twice in the Olympic Games, but he also wielded much power in the Hawaii expedition. Moreover he, as one of the Meiji University

team, went to Hawaii and contested against Yale University.

He is a never-to-be-forgotten man who has rendered good service in the Japanese swimming circle and in his knowledge about breast stroke, he is without a peer.

INDEX



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SWIMMING IN JAPAN
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昭和十年十二月二十日 印刷
昭和十年十二月二十五日 發行

印刷人 除村一學
同 同みち

東京市京橋區銀座西七丁目五番地
發行者兼印刷人 國際子女親善協會
代表者 馬場直美

東京市京橋區築地四丁目四番地
印刷所 中尾三間印刷株式會社

東京市京橋區銀座西七丁目五番地
發行所 國際子女親善協會

Published by
International Young Women and Children's Society
No. 5, 7-Chome, Ginza-Nishi, Kyobashi-ku,
Tokyo, Japan.

Printed in Japan

明智左馬之助光春
湖水乘歩唐崎松
之圖