

DRAWN BY OTTO H. BACHER.

FROM A SPECIMEN IN MEMORIAL HALL, PHILADELPHIA.

BATON.

THE ARMOR OF OLD JAPAN.

With illustrations from "Precious Jewel Records of Military Usage," Japan, 1694.



HELMET OF YOSITSUNÉ, WITH "SKY-PIERCER."
1185 A. D.

OF the art of Japan, as shown in the wonderful war implements of her great military leaders of old, the daimios, and of their vassals, the samurai, few of us have any but the vaguest of knowledge. A

few suits of curious armor in the museums of our large cities, a few swords,—the long one for despatching one's enemies, the short one for despatching one's self, according to the code of honor among the Japanese,—give us the merest hint of the admirable defenses and weapons which were produced by this energetic and intellectual race during ages of warfare.

In Memorial Hall in Fairmount Park, Philadelphia, is a small but very interesting collection of the weapons and armor of old Japan. These wars lasted until three hundred years ago, when the long peace set in. To this peace we are indebted, perhaps, for the best of the art we now enjoy, except in this one branch—metal-work. For this, warfare was the great stimulus, and the metal-worker of twelve hundred years ago, in the opinion of so good a judge as Anderson, "had little to learn in mastery of materials or tools."

The collection was brought to this country a few years ago by Tatsui Baba, a young samurai belonging to the patriotic party, and well known throughout Japan as an able writer and a leader in public affairs. He had made a special study of the ancient armor of his native land. The results of his researches he gave in the form of lectures before the learned

societies of our large cities. After his death in 1888 his cherished curios were secured by the Pennsylvania Museum and School of Industrial Art, whose collections are housed in Memorial Hall.

The most striking things to a casual observer are the three curious suits of war-harness, examples of that worn in Japan during the third,¹ fourteenth, and sixteenth centuries. This must not be classed with the armor we see in almost every curiosity-shop abroad, which is of much later date, belonging in many cases to a soldier of our own day.

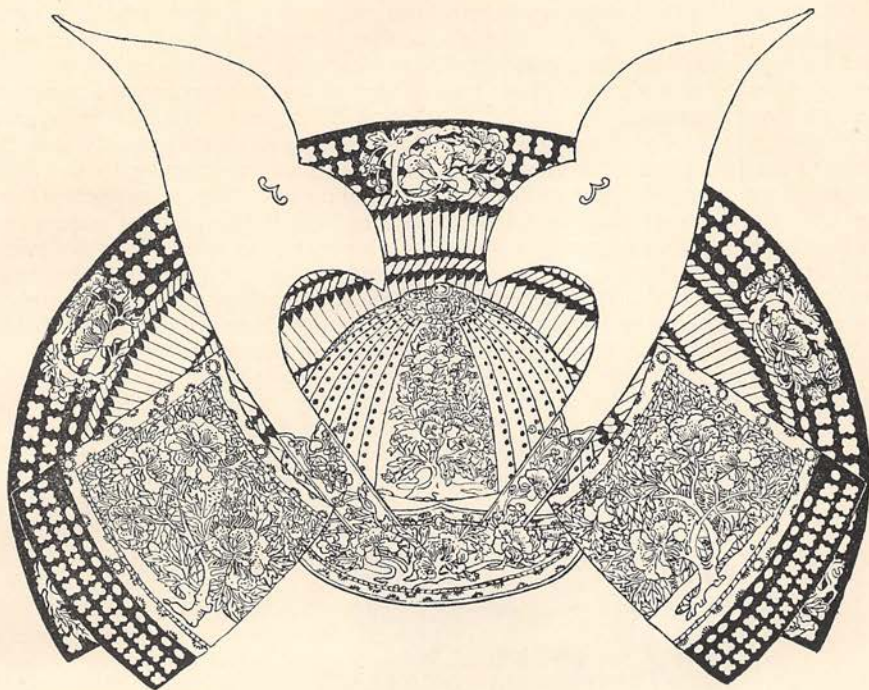
As with other nations, the war-harness of rawhide, called in Japan "shell" armor, came first, and lasted down into the ninth century. This was the time of Charlemagne and his leather-clad knights, when, in Europe, "every man wished two things: first, not to be killed, and, next, to have a good leather coat." Tunics were of plaited leather; and coats, hoods, breeches, and shoes were made almost entirely of this material; and while the coats, it is true, had plates of iron riveted upon them, the casques alone were of steel.



DRAWN BY OTTO H. BACHER, FROM A SPECIMEN IN MEMORIAL HALL, PHILADELPHIA.

THIRD-CENTURY ARMOR.

¹ So attributed, but probably belonging to the sixth or seventh century.



FROM AN OLD JAPANESE BOOK.

HELMET OF YOSITSUNÉ, WITH KUWAI-LEAVES.

The iron-and-lacquer war-harness of Prince Shotoku, the great apostle of Buddhism, may still be seen in the old temple of Horiuji in the province of Yamato. It was worn about 586 A. D., and is the earliest specimen of Japanese armor in the possession of the nation. A picture of the prince in his elaborate court dress, drawn by himself, as the Japanese declare, is kept in the temple of Tennoji in Osaka, along with his "sword of seven stars." On the blade of this sword shine the seven stars which rule human destiny, and the dragon, symbol of his mission as defender of the faith of Buddha. It was to his neighbors the Koreans, most likely, that Prince Shotoku owed his fine war dress; for their craftsmen came over the sea to Japan during his time, bringing with them a knowledge of metals and of art superior at the time to that of the islanders. Indeed, the Japanese of the present day prefer to their own truly artistic work their heirlooms of old Korean and Chinese make, which in our eyes are often far from beautiful.

Of the three suits of armor in Memorial Hall that attributed to the third century is the most richly decorated. A description of this suit will answer, with few exceptions, for all three; for in that fortunate land the fashions did not change, but descended unaltered for generations from soldier-father to soldier-son.

The cuirass is called the "breast-binder,"

and is made of leather, on which are fastened thin plates of well-tempered steel covered with polished black lacquer. The lower edge of one row of plates is covered by the upper edge of the row beneath, in window-shutter fashion. The little plates are fastened together with stout silk braid in several shades of purple. There is such a profusion of this braid that it gives a decided hue, and a name, to the whole suit. The Mikado himself, should he appear on the field of battle, would wear the "armor of shaded purple," and his bow-gloves would be dyed in the same royal color. To this cuirass are fastened the half-dozen separate tassets which hang from the waist nearly to the knees. They are made, like the cuirass, of narrow, upright steel plates bound together with the same purple braid. Underneath them is worn a sort of divided skirt of yellow brocade, stout and heavy, and on this are fastened the two pieces of plate-armor which guard the lower thighs.

The sleeves are of the same strong yellow brocade, covered partly with chain-armor, partly with plates of iron overlaid with brass. The brass is openwork, with a charming design of plum-blossoms, the round elbow-guards being specially attractive.

The war-chief who owned the original of this harness fought on horseback, for his long leg-guards are entirely of iron, carefully modeled to the shapely leg of the wearer, and covered

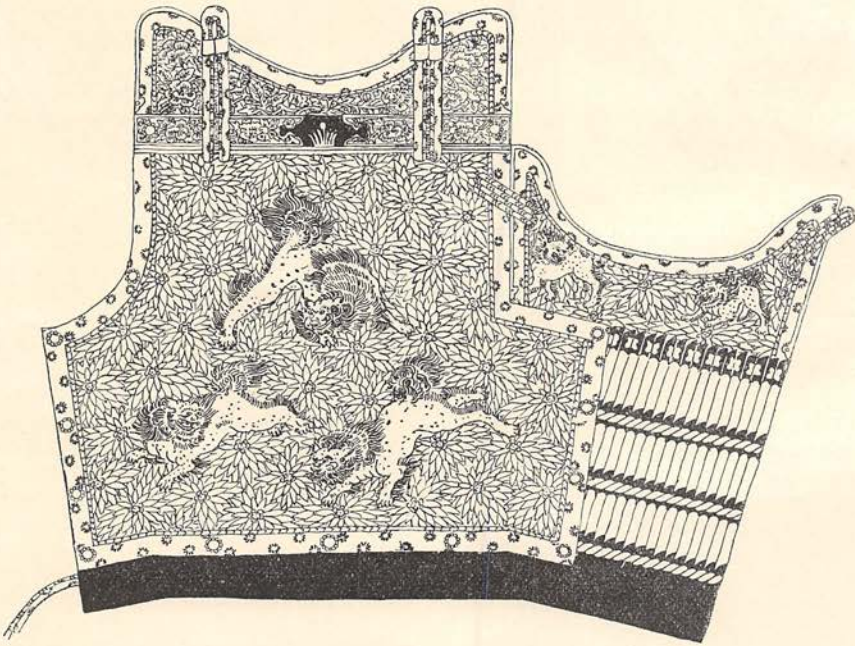
with brilliant black lacquer. Gilded butterfly-clasps join the three upright strips, ten butterflies in all, and every one different. For his retainers, the fighting footmen, locomotion was made easy by having side-pieces of pliant leather set into their leg-guards.

The iron helmet, studded closely with little iron points, is a fine piece of workmanship. The brazen horns stand bravely up in front, looking, with their central ornament, like a pitchfork or a trident. The broad iron flaps which turn back to guard the temples are covered with leather dyed in plum-blossom pattern, and have on them the badge of the chief, a single kiri-leaf. The daimio, though king of his own domain, must never dare to assume the triple kiri-leaf, a symbol forbidden to all but the Mikado himself.

In the iron face-guard, nose, chin, and ears all come in for the kindly consideration of the

The daimios of those old times had three favorite ornaments for their helmet-fronts, and seldom cared to vary them. The one most familiar to us in art was two huge leaves of a very decorative Japanese water-plant, the *kuwai*. These, made of chased brass, and often covered with silver and gold, stood up in front of the helmet, one turning to the right, the other to the left. Next in favor came the "skypiercer," much like the first except that the two *kuwai*-leaves scraped the sky even more defiantly. The third was the crescent. The horns (representing courage) in the early armor we have just described were also in high repute among the chiefs.

In later days the smiths used their ingenuity in inventing every kind of curious and grotesque helmet shape and adornment, bringing into service all manner of queer shells and fishes, birds and beasts, monsters and devils.



FROM AN OLD JAPANESE BOOK.

BREASTPLATE OF YOSITSUNÉ, WITH THE IMPERIAL LIONS AND CHRYSANTHEMUMS. 1185 A. D.

modeler. The mouth and nostrils have shapely breathing-holes, while underneath the chin is a row of little "ventilators." Such charming devices for comfort were unconsidered and unknown among the European armorers of that early time. To make all secure, throat and neck were covered with a sort of beard of plates hanging down from the face-guard. Even the very oldest helmets have an air-hole at the top, usually forming the center of a silver chrysanthemum. The ancient Japanese metalworkers, with their race passion for decoration, turned even a ventilator into a thing of beauty.

Waving tongues of flame, skilfully reproduced in metal, often glistened over the heads of the great commanders.

The twelfth-century armor of Yositsuné, Japan's most famous hero, is carefully guarded in the Temple of Rising Happiness (*Kofuku-ji*) in the ancient town of Nara. His helmet is there, with chasings of silver and gold, with flaring *kuwai*-leaf plume and so-called "lion" crest. The Japanese had probably never seen a lion with their own eyes; they used the eyes of the Chinese, and between the two pairs of oblique orbs the king of beasts became a piti-

able distortion. The Japanese name for this conglomerate is "foreign lion." On the breast-plate three of the same extraordinary beasts, with tufts on their tails and rosettes on their legs (like the prevailing fashion in black puddles), are snarling at one another among the imperial gold and silver chrysanthemums.

There was a special decree as to the manner in which the warrior of these middle centuries should put on his elaborate armor: a sequence modeled after the fashion or fancy of no less a personage than Yosi-iyé, head of the Minamoto family in 1057.

First he must swathe himself in a long and voluminous garment of yellow cotton, and a pair of equally voluminous white cotton trousers. His long hair, to keep it out of his eyes, should then be tucked up under a peaked cap of leather, which saved the head from the helmet's pressure. Next he must strap on his bow-gloves. After that came a second coat and trousers, a sort of undress uniform, preparatory to the armor proper; then the leg-guards, the bearskin shoes, and the sleeves of mail. Lastly, the suit of armor, with its helmet, was tightened on with the long silken rolls or tubes that answer to our leather straps; the final touches, in the shape of sword and dagger, "arrow-cage" and arrows, bow and banner, were added — with groans, one would fancy; and this strange warrior was ready to strike terror into the souls of the enemy.

A set of colored prints from Japan shows the daimio in process of putting on these articles, each in its proper order. The attitudes are striking, one in particular, after he has put on his clumsy bow-gloves, and is struggling to tie his bearskin shoes. Of these shoes there is a pair in the collection, with black leather soles stamped with chrysanthemums, and black bearskin uppers with the shaggy hair outside, a shapeless but comfortable foot-gear. The ancient buckskin bow-gloves, too, are here, consisting chiefly of a very fat wadded thumb and two fingers for the right hand and a solitary thumb for the left.

The obvious awkwardness of the order in which these warriors of the middle ages were forced to array themselves was probably due

merely to the personal fancy of a great leader like Yosi-iyé, but was copied so faithfully by his conservative followers that the tradition, after lasting simply as a tradition for nearly three hundred years, crystallized in 1331 into an actual code.

The fourteenth-century armor in the museum is much plainer than the suit just described. It has the "round" cuirass, the whole effect of which is red, owing to the profusion of red silk braid used for binding the plates together.

The old Japanese braid was not like most of ours, half cotton or linen: it was pure silk, of the toughest and most enduring character, plaited in a way which secured the highest degree of resistance. The Japanese much preferred it, for most uses, to thongs of leather.

The daimio who wore the original of this armor had a fancy for a crescent between the two great water-leaves of his helmet, and a weakness for his chosen device or ancestral crest, which is on every part of the suit where a device could possibly be placed — on cuirass, hand-guards, thigh-guards, and, above all, on his helmet, where it appears on the little upright ears that take the place of the temple-flaps, and also on the front of the helmet, below an archaic Japanese character meaning "warrior" or "military man." This badge or device is the Buddhist symbol for ten thousand.

The ordinary wooden bucket of Japan gives name and shape to the "bucket" cuirass of the sixteenth-century armor. Its helmet shows the later and rather startling taste of the armorers or their masters. Instead of the brazen spade, crescent, or

water-leaf, simple and decorative, that had shone for centuries over the heads of the daimios, they must now make themselves frightful with monsters. Here we have the grinning head of a devil, with glass eyes and great hooked teeth, pointed ears, and long, curving, gilded horns. Flowing locks of gray horse-hair stream down on each side of this grisly countenance, and a huge gray horsehair mop takes the place of the fine old lion or dragon crest of the earlier chiefs.

The heart of the modern devotee of "high art" in fabrics would be gladdened by the



DRAWN BY OTTO H. BACHER, FROM A SPECIMEN IN MEMORIAL HALL, PHILADELPHIA.

FOURTEENTH-CENTURY ARMOR.

Right leg left without the armor-guard to show shape of piece for lower leg.

design of the heavy brocade on which the iron defenses for the sleeves and lower thighs of this sixteenth-century armor are fastened; where, through a background of softest gray-and-silver clouds, the imperial dragon is drawing the coils of its vaporous body. The same stiff brocade forms part of the side-piece of the work of art with which the armorer protected the legs of his feudal lord, the original owner of this suit. The leg-guard is, as always, of lacquered iron, but its lower side-piece is of stout buckskin dyed in brown, leaving in white a few dragon-flies scattered over the surface. The wadded knee-piece is of snowy buckskin quilted in hexagons, each with a "cross-knot" of red silk braid in the center.

By the side of these, though not in the same collection, is a suit of armor worn about three hundred years ago by the Prince of Tchui. It was selected by the governor of Kioto for a recent American consul, as a fine specimen of the old lacquer-work. The cuirass is lacquered both inside and out, the outside being solidly gilt. The helmet-crest is a red disk, upon which one may dimly discern a golden lotus-blossom.

The small silken flag or banner on which the ancestral blazon or the device chosen by the warrior himself was painted, embroidered, or woven, was often carried on his own back. This strikes one as an economical and clever arrangement: it saved the banner-bearer's daily wage of rice, and one's colors were always on the spot at the critical moment. The daimio of those stirring days was entirely independent in this respect: his banner-staff was slipped through a hinged eye at the top of his cuirass-back, its pointed end fitting into a socket at the waist. Two of the suits of armor brought from Japan by Tatsui Baba have this eye-and-socket arrangement.

The blazon, like those of the knights of other nations, was chosen to keep in remembrance some feat of arms performed by the warrior. Should he be so happy as with some favorite "cut" to slice off the heads of three of his enemies in battle, he would be apt to choose for a family coat the three severed heads. We can fancy him, armed cap-a-pie, urging his small, shaggy charger into the fray, with the triple-headed banner waving over his shoulder.

Other emblems worn in the same way were made in the shape of fans and temple-bells, butterflies and stag-horns, as in the head-piece.

From the twelfth to the seventeenth centuries the fighting was frequent and fierce, and the armor more protective. Out of the "three articles"—helmet, breastplate, and sleeves—which we read of in the ancient Japanese records had been gradually evolved the "six articles": a metal covering for face, legs, and thighs gave



DRAWN BY OTTO H. BACHER, FROM A SPECIMEN IN MEMORIAL HALL, PHILADELPHIA.
SIXTEENTH-CENTURY ARMOR.

a man a better chance for his life against the rapid cuts of those wonderful blades, or the quick spear-thrusts delivered by the short but sturdy knights and their retainers. The more we study this armor the more admirably does it seem adapted for a defense against the special weapons opposed to it. These were seldom the heavy hammers and great crushing battle-axes of the Europeans, or, later, their bolts and bullets. They were chiefly arrows, spears, and halberds, swords and daggers; but these were unrivaled in metal and make, and were wielded with extraordinary skill.

The Japanese armorers, from the earliest centuries, united in their war-harness such flexibility and lightness, efficiency and comfort, together with beauty of workmanship and decoration, as were rare among their craft in Europe. Using the invaluable and universal leather as a foundation, they covered it, as did the Europeans, with plates of iron or steel.

But instead of compelling their lord and his retainers to waste time and strength in keeping their war-gear rust-free and glistening, they simply covered these plates with their wonderful lacquer. Lacquer added little weight to the metal plates beneath it; no burnishing was needed upon its glossy surface, the rounded

form of which often served to turn the enemy's sharpest arrow or keenest sword-blade. Above all, the destroying devil of rust was annihilated. According to the old chronicles of the knights of Europe, as much muscular force was wasted in refurbishing up their armor as would have beaten the enemy twice over.

To illustrate the conservatism of the Japanese in their armor, we quote a native account of a fight which occurred in the streets of the capital Kioto as late as 1864, between the troops of the shogun, who had possession of the person of the emperor, and the forces of the "irregulars," who were clamoring for the expulsion of all foreigners.

The Choshu troops [irregulars] were defended by armor, their leader clad in a suit of armor tied with grass-green silken strings, and covered with a garment of Yamato brocade. Over this he wore a surcoat of white gauze, with figures drawn on it in black. He bestrode a charger, a baton of gold paper in his hand. Before him went flags and banners and two field-pieces, with a company of thirty spearmen. The spears, crossing each other, looked like a hedge of bamboo-grass; bullets flew overhead like axletrees. Helmets and cuirasses that had been cast away by their owners, spears, pikes, bows, and muskets, were lying about in quantities.

Another leader was

mounted on horseback, and held a baton of white paper in his hand. He wore a mantle of scarlet embroidered with his crest, the trefoil, and under it a suit of armor adorned with purple fastenings. His head-covering was a warrior's cap of bronzed leather.

These batons, a very early symbol of authority in Japan, were wielded with vigor by the daimios. The one in this collection is a short wooden rod or wand covered with black lac-

quer and mounted in silver. At one end is a huge plume of the tough Japanese paper, silvered; and at the other, cord and tassels of heavy red silk braid. When not waving wildly in command, it hung by its cord to a ring on the breastplate.

The daimio, with his Tatar cockade and his overbearing ways, is now perhaps picking tea



DRAWN BY OTTO H. BACHER, FROM SPECIMENS IN MEMORIAL HALL, PHILADELPHIA.
Sixteenth Century. Fourteenth Century.
LEG-ARMOR WITH BEARSKIN SHOE.

or binding rice. The samurai, with his two swords and his swagger, taxes the country no more. The beautiful swords have degenerated into curios. The modern army of Japan, modeled on European lines, equipped with the latest European firearms, admirably organized and disciplined, owes, nevertheless, much of its brave spirit to its iron-and-lacquer warriors of centuries ago.

M. S. Hunter.

JADE.

THE patient craftsman of the East who made
His undulant dragons of the veined jade,
And wound their sinuous volutes round the whole
Pellucid green redundancy of the bowl,
Chiseled his subtle traceries with the same
Keen stone he wrought them in.

Nor praise, nor blame,
Nor gifts the years relinquish or refuse,
But only a grief commensurate with thy soul,
Shall carve it in a shape for gods to use.

Edith Wharton.