ISLAMIC SWORDS IN MIDDLE AGES [1] [2]

BY

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The sword is a weapon of offence consisting of a blade fitted into a hilt or handle, with a guard, the blade being formed to cut or to pierce, or more generally to do both.

Its forms and modifications and the names under which in different shapes it has been known in different lands, and in successive ages, are beyond computation.

The blade may vary in length. It may be furnished with a cutting edge on one side only, or both sides.

To the Arabs, the sword was the most highly honoured of all weapons. «Paradise, the Prophet Mohammad said, is under the shadow of swords», and one of the greatest of the early Moslem conquerors was dignified by the title : « Sword of Allah».

Early Islamic swords were straight-bladed having single edges ; though we find quotations of Arabic poetry mentioning dual edged (شفرتين) swords.

مقاديم وصّالون فى الروع خطوهم بـكل رقيـق الشفرتين يمـان

«Progressing and bringing near in battle by their steps, every sharp two edged Yemenite sword.»

Although Arabic poetry and literature abounds in monographs on Islamic arms, especially the sword, yet the technical problems of the blade industry were not touched upon by a great number of Moslem savants. Al-Kindi, Al-Bairuni and later Al-Tarsoussi, contributed valuable treatises about medieval Islamic blades, which helped us to a certain extent in writing this paper We shall try first to discuss the important points of these manuscripts.

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[1] Communication présentée en séance du 5 avril 1954.

[2] Islamic swords in the west : Moslem Spain and North Africa are not treated.

I. The treatise of Al-Kindi on Arab Swords.

The treatise [1] of Al-Kindi, the Arab philosopher in 9th century [2] is included in the vith chapter of an invaluable manuscript (book IX) entitled « Gamharet el-Islam that al Nathr wa-al-Nitham» partly written and partly compiled by Amin el-Din Abu-el-Ghanayem el-Shaizari, who lived in the beginning of the 8th century H. (XIII A.D.).

Most probably, the treatise in question was written by Al-Kindi to Al-Motassim bi-Illah, the Abbasside Caliph of Bagdad (ruled 833-841 A. D.). This view was supported by the Moslem author of a military manuscript entitled : Al-Soel wa-Al omineh fi taalim al furusieh [3].

As far as we know, von Hammer Purgstall, the Austrian orientalist (1774-1856) was the means of introducing of Al-Kindi's treatise ; and a summary of it was published in the Journal Asiatique [4] one hundred years ago (fig. 1).

Al-Kindi says that iron, from which swords are tempered is *either* (معدنى) or is (ليس معدنى [5]). The first sort comes from the mines, and is classified into two kinds :

1. *Shabarqan* or male iron is hard and dark ore (شابرقان — حديد مذكر).
2. *Narmahan* or female iron is soft (نرماهن — حديد مؤنث).

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[1] Oriental Library at Leiden, Arab Manuscr. 287. Another copy exists in Istanbul University Library of which a copy is photographed in the Egyptian Library, Cairo, n° 9223 (Litt.).

[2] Abu Yusuf Yaqub Ibn Ishaq al Kindi (801-275) was an Arab philosopher, whose family came from Southern Arabia. He was born in Kufa' and educated at Basra and Bagdad. Not much of his work has survived in its original language but a good deal is still extant in Latin translation made by Gerard of Cremona and others. Beside his achievements in mathematics, astrology, alchemy, optics, Al-Kindi wrote a treatise on swords, in which he enumerated more than twenty five varieties according to the country of origin, from Yemen to Ceylon, Arabia to Persia and as far as France and Russia.

[3] Egyptian Library, Cairo. ٢٦ فنون حربية — مؤلفه بدر الدين الرماح .

[4] De Hammer Purgstall : *Sur les lames des Orientaux*, *Journal Asiatique*, 5e sér. (3) 1854, p. 66-80.

[5] With (ليس معدنى). Al Kindi means that it is treated artificially آى ناتج من عملية صناعية .

Of these two sorts a third is composed which is named the *compound* (المركب).

Steel (فولاذ) also mentioned by Al-Kindi, is an alloy and is not taken directly from the mines; it means the «purified». The word «fulath» is originally Persian (Poulad) which is the steel resulting from a certain treatment, lately well-known under the name of «Damask» steel, a technique which originated in ancient India, and later developped by the Moslems.

From steel three kinds of swords are tempered :

a. *Old steel* swords (Ateek = عتيق)

b. *New Steel* swords (Mohdath = مُحدَث).

c. That which is *neither Ateek nor mohdath* (لا عتيق ولا مُحدث).

Swords which are neither old or new are divided into (مولَّد وغير مولَّد) Mowallad and ghir Mowallad : that is to say properly Arab or non pure-Arab.

The classification into old, new, etc., refers, as Al-Kindi's treatise points out, specifically to the excellence of the quality of the blades. The term «ateek» refers to nobility exactly as horses are qualified [1]. It has nothing to do with time.

Steel (foulad) is explained in Al-Kindi's manuscript as thus :

الفولاذ ومعناه المصفا . ويصنع من الحديد المعدنى (اى الذى يحصل عليه من المنجم) بما يلقى عليه فى السبك حتى يصير متينا لدنا يقبل السقى . ويظهر فيه فرنده .

A. *Old steel blades* (Ateek = عتيق)

The author mentions three patterns of ateek (عتيق) sword-blades :

1) Blades from *Yemen* (يمنى)
2) Blades from *Kalaa* (قلعي)
3) Blades from *India* (هندى/هندوانى)

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[1] Al-Kindi : كما يقال فرس عتيق . يراد به كريم مما لحقته خواص الكرم .

1. *Blades* of *Yemen* :

Yemen was noted for its swords; it imported steel blades from Ceylon or from Beilman [1]. Yemenite swords belong to the category of « *Ghir Mowallad* » swords (غير مولد)

The swords of Yemen were much quoted in early Arab poetry; thus :

يركب الهول وحيدا ولا يصحبه الا اليمـــــــــانى الأفـلّ

« He braved terrors alone and was not accompanied except by the Yemeny sword full of notches. »

Yemenite swords differ as follows :

a. Broad-bladed, square, with a central groove till the end, which is fixed in the hilt.

b. The engraved blade, hammered in the fashion of the Samsama blade, the illustrious sword in Arab history.

c. The Chehadast?

d. Swords with blades having three grooves running along the surface.

These are two-edged swords.

2. *Blades from Kalaah* :

مُحارَف بالشاء والاباعر مبـارك بالقَـلعى الباتر

Kalah on the Western coast of the Malay Peninsula, became a great marketing centre from which tin was distributed to various parts of the world. Near Kalah a fortified enclosure was established, in which armourers used to forge good swords [2].

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(1) Beilman was noted as a centre for sword making. A small town which lies at the boundary junction between Sind and India. Balathury : Futuh-Al-Buldan, p. 440-442. Yacut mentions that it is Yemenite.

(2) See reference to the town of Kallaah by Ibn-Said (XIII, the century) in G. Ferrand, *Relations des voyages et textes géographiques arabes, persans et turcs relatifs à l'Extrême-Orient*, etc. Paris 1913-1914, t. II, p. 344.

3. *Blades from India*

Al-Kindi mentions that these are made of Narmahen iron. Indian swords noted by their brightness are also named Mandali [1]. Indian swords differ in their measure, and their blades bear figures.

Indian swords or swords made of Indian steel were mostly mentioned by early Arab poets, thus Hellal describing the flight of the Hemyarites says :

فولّوا تحت قطقطها سراعا تكبهم المهند والذكور

« but they fled under small hail (the clouds of arrows) quickly, whilst hard Indian swords were prostrating them.

B. *Non-Ateek swords.*

The *non-Ateek* swords are known as the Silmanieh, the Ceylonese, and al-Baid. Al-Bahang also is included.

a. Al-Bahang swords are four inches wide, having a rude watering.

b. Al-Ruthuth swords are also four inches wide, sometimes less, having a minute grain (دقاق الفرند) .

c. Swords hammered in Silman and in Ceylon.

d. Swords of Khorassan, its iron comes from Ceylon.

e. Al-Mansurieh swords, its iron brought from Ceylon.

f. Persian swords, whose iron comes from Ceylon, but made in Persia. These are also called Imperial Kossrawaniya.

g. Al-Bidh : (البيض) which are manufactured at Kufa, a type of which is named Al-Zaidieh, from the maker's name : Zaid. Also at Kufa, a Persian type of swords is made.

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[1] Kazwini mentions that Mandal is a town in India where al-nad is found in large quantities; al-nad is also named mandali or the Indian Kameroni. Arab Geographers of India by S. Moh. Husayn Mainar, Madras page 88.

C. *The Muwallada Swords*

Al-Muwalladah swords (المولدة) : are subdivided into five sorts :

a. Khorassaniya : whose iron comés from the mines of Khorassan and are manufactured at the same locality.

b. Bosriya : whose iron comes from Bosra and is tempered at the same locality [1].

c. Damashkieh : swords tempered at Damascus.

d. Egyptian swords which are made in Egypt.

e. Other varieties made in various localities in smaller quantities.

The Narmahen (female iron - نرماهن).

Narmahen swords are : *a*. those of Churat [2], *b*. those of Rum [3], *c*. those of India.

The swords of Churat and Rum are simple (Sathig), thin, long, they have various measures. Their watering «jawhar» can be identified.

Characteristics of Swords

Al-Kindi in his treatise dealt with the characteristics of each sort classifying them into groups. As regards the Shabarqan blades, he divided them into two groups : Al-Firingieh or Frankish, and the Silmaniyah.

a. *Silmaniyah* swords : their iron is brought from Silman, in the Oxus where good blades are manufactured. Al-Kindi says that their iron resembles that of the Firingieh swords. They bear no figurs and their lower part looks like the Yemenite swords. The Selmaniyeh have

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[1] The blades of Bosra were mentioned in connection with Davidic cuirasses.

[2] Al-Kindi did not explain entirely Churat. The valley of Churat lies southern of Al Bakai in Transjordan.

[3] The provinces of the Byzantine Empire were known collectively to the Moslems as Bilad-ar-rum, « the lands of the Greeks » ; the term « Rum » standing for Romaioi or Romans being in early Moslem times the equivalent for « Christian » whether Greek or Latin. G. Le Strange, *The Lands of the Eastern Caliphate*, p. 127.

smaller and brighter blades. The two extremities of the blade are equal.

b. *Kaleih* swords : they are made at Kaalah.

c. *Bosra* swords (Mohdatha).

Their iron is not purified before melting. The blades have grains like the Selmaniyah's and their watering or jawhar is between black and dark, shining when exposed to the sunrays. Their edges are very sharp. The measures of the blades differ : broad, thin-long or short. Bosra swords were conveyed to Al-jibal for sale but not at the same price as the Yemenite (two and half dinars).

d. *Damascus* swords :

These cut extremely well if they were of old manufacture. They have long blades, which resemble the Selmaniyah. Their iron is of the same material as the « Beids » but their « jawhar » differs. Damascus blades (mowallid) are the sharpest, their price amounting to 15 or 20 dirhams.

e. *Egyptian* swords : (Missriyah).

These are manufactured in Egypt, having long blades and smooth surface. Their iron comes from Bosra. An Egyptian sword costs ten dirhams.

f. Frankish swords are broad near the point, they are the same in measure as the Yemenite and have one large groove which runs through the whole length of the blade.

2. *Al-Bairuni on Islamic swords*

Another source of material on Islamic swords is Al-Bairuni's (973-1048). As a traveller, philosopher, mathematician, astronomer, geographer and encyclopeadist, he is considered one of the greatest scientists of Islam. In the course of his travels in India he made a deep study of Sanskrit literature and was influenced in the transmission of scientific ideas between India and Islam. Al-Bairuni also determined the relative densities of metals and precious stones [1]. In his book

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[1] H. J. J. Winter, *Eastern Science*, pp. 70-71.

« Al-Gamhir fi maarefat al-Gawaher [1] he contributed a chapter on the manufacture of swords, especially in India. He shared most of the views of Al-Kindi, mentioning the Narmahn, the Shabarqan iron and al-daus. From Shabarqan the swords of Rum, Russians and Slavs were wrought. He also mentioned al-Kaallai swords in detail and remarked that Herat was famous for its steel. Among Islamic swords, he included those of Suraij, Qossas and Mashraf [2].

Al-Bairuni emphasized that Russian swords are made of mixed Shabarqan and Narmahn and that only the central part of the blade being made of Narmahn.

The Persian philosopher explained the process of the « jawhar », or watering and its varieties, which play an important part in Oriental connoisseurship. This appearance is the result of a crystallisation which takes place during the cooling of the steel and appears to depend partly on a mixture of iron ores, partly on the kinds of wood, employed in heating the steel [3]. Although this treatment is known in the West as the « Damask » yet it originated in India [4].

3. *Manuscript of Al-Tarsussi* [5]

Another work dealing with Islamic arms and equipment of war was written by Murda Ibn Ali el-Tarsussi during the reign of El-Sultan

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[1] Al-Gamahir fi Maarifat el-Gawaher, published by the *Society Othmaniya Encyc. of Islam*, 1355 H. pp. 248-258.

[2] Suraj, *An early Arab swordmaker-Qossas is a well-known mountain in Armenia famous for its iron-Mashraf :* a collection of villages which lie in southern Syria.

[3] G. F. Laking, *Catalogue of Oriental arms and armour in the Wallace collection*, London 1914.

[4] Claude Cahen, *Bull. d'Etudes Orientales*, t. XII, années 1947-1948, Beirouth p. 103-163.

[5] Enlightment to the masters of wisdom on the methods of avoiding destruction in combat, and getting informed about supporting instruments and weapons when dealing with the enemy, Bodleyan Library, Hunt 264.

« تبصرة الألباب فى كيفية النجاة من الحروب ومن الأسواء . ونشر أعلام الأعلام فى العدد والآلات المعينة على لقاء الأعداء » .

See, Claude Cahen, *Bulletin d'Etudes Orientales*, t. XII, années 1947-1948, p. 103-163.

Salah-el-Din el-Aiubi in Egypt (1138-1193). The author when writing the treatise got in touch with a noted armsmith Abu El-Hassan Ibn-Al-Abraki from Alexandria, a contemporary of the Fatimides and the Ayubides and so he was able to include various war instruments among which were Islamic swords; he also mentioned nine different processes of steel manufacture for swords, or as he says in his own technical terms, the cooking of steel, tempering and watering of the blades.

The essential principle of these processes he indicated, was the inclusion of certain vegetable substances which when worked with melted iron provided the metal with carbon, and the addition of manganese which serves perhaps to eliminate impurities (sand, phosphorous etc.).

We said that Al-Tarsussi mentioned in his treatise nine processes of making swordsteel. A formula runs as follows :

Take one rotl of iron (Narmahan) and half a rotl of male-iron (Shabarqan). Collect the mixture in a pot and put on it five dirhems of magnesia and a handful of acid pomegrenate bark. Let the fire blow on it still the alloy melts, then make an «egg» of it. Take it out and make the sword.

The Damask «Jawhar» process

The process practiced by Moslem armourers and gunsmiths remained traditional, and if not familiar or secret, at least remained many years unpublished [1]. On arms and their technique, Moslem authors with the exception of al-Kindi and Al-Beiruni did not contribute much until the 11th century, and even those who treated the subject later, did not deeply engage themselves with the details.

About swordsmaking, writers on arms have with few if any exceptions, treated only some historical aspects of the subject and have seldom noticed the reason why certain types of swords were used among the various Islamic countries. The treatises which they wrote on the actual working of swords are all too vague in their details.

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[1] G. Sarton, *Introduction to the history of Science,* vol. III, part II, pp. 1174-1175.

The industry disappeared doubtless for the reason that the process was known to so few craftsmen, there were few that neither Moslems in the Middle East nor Europeans have been able to revive at least to the 19th century.

Yet the secrets of Moslem swordsmiths were attempted to reveal by some European metallurgists. The most important problem, searched, was that of watered or « damascened» blade. This Damascene process was tried by many western metallurgists, among whom Dr. Pearson [1] Faraday [2] and Bréant, the Examiner-General of Essays at the Royal Mint, who presented to the Academy a paper on the composition of that steel [3]. For several years a few papers were published on the subject until General Anossoff, at Zlatoust in Russia conducted his investigations for several years. Finally in 1837, he was able to say that the problem was solved. Beautiful swords manufactured by him bear testimony to this words [4].

Anossoff's work gradually fell into oblivion, till Prof. I. Tschernoff, in the 1860's paid a visit to Zlatoust and became interested in the «bulat». Tschernoff inspired and helped Colonel N. T. Belaiew who in 1907 began experiments at the Pulitoff and other steel works. He put soft Demidoff iron and graphite in crucibles (Persian Method) and continued the heating for more than two hours after melting. He sealed the furnace and slowly cooled down. His alloys varied from 0.45 % carbon up to 1.80 [5].

Belaiew's conclusion was that the alloys used for the beautiful Eastern blades with the «jawhar» or « watered surface» were pure iron-carbon alloys, mostly hyperentectoids, and very rich in carbon (fig. 2, 3).

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[1] G. Pearson, *Phil. Trans. of the Royal Society*, 1795, vol. XVII.

[2] Alloys of steel. By Stoddart and Faraday, *Phil. Transactions*, vol. CXII, 1822, p. 253.

[3] *Bulletin de la Soc. d'Encouragement pour l'industrie Nationale*, 1823.

[4] On the Bulat. « *Gorny Journal*» 1841, and reprinted in 1843 in French in « *Annuaire du Journal des Mines en Russie*».

[5] Colonel N. Belaiew, « Damascene Steel», *Journal of Iron and Steel Institute* XCVII, 1918, part I, p. 417 and CIV (1921), part II, p. 181.

Islamic Miniatures and sword illustrations.

Unfortunately, until the 12th century, we have no illustrated references to Islamic arms, especially the sword. From the beginnings of the 13th century on, miniatures provide accurate pictorial records, especially manuscripts of the Shah-Nameh which describe the arming of Persian heroes for single combats and for battle [1].

1. *Mahkamat-al-Hariri :*

The illuminated manuscript of Mahkama-al-Hariri [2] illustrated by Al-Wassiti (1237 A.D.), is attributed to the painting school of Northern Mesopotamia, which flourished circa the beginning of the 13th century. Three illustrations represent early Islamic straight swords.

a. Al-Harith in conversation relating his misadventures with a man of law. Three straight swords are portrayed (fig. 4).

b. Two Arabs riding on camels one of them carrying a straight sword (British Museum), (fig. 5).

c. An Emir sitting on a cushion, surrounded by guards carrying straight swords (fig. 6).

2. *Al-Aghani of Al-Asphahani* [3].

This manuscript, including a religious illuminated picture portrays Mohammad the Prophet seated on a throne holding a straight sword

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[1] Arthur Pope, Survey of Persian Art *Chapter on arms and armour,* pp. 2558-2563.

[2] Bibliothèque Nationale Paris. Manuscript n° 5847. The Assemblies of Al-Hariri attributed to its author (1054-1122 A. D.) a masterpiece which for eight centuries has been esteemed as next to the Koran, the chief treasure of the Arabic language. The most important copy of Hariri's Mahkamat is in the Bibl. Nat. was written and illustrated in the year A. H. 634-1237 by Yehia Ibn Mahmoud of Wasit, known as al-Wasiti. The magnificent illustration with large figures, give a realistic account of daily life. Al-Wasiti was doubtlessly a great painter who created a new mohamedan style.

[3] Bishr Faris, *Une miniature Religieuse de l'Ecole Arabe de Baghdad. Livre des Chansons d'Abu'l Farag al-Asfahani,* National Library, Cairo. Litt. 579.

(fig. 7). The illustration belongs to the School of Baghdad, but the painter's name is still unknown. The chapter of Al-Aghani, which includes the illustration is copied by Moh. Abi Taleb el Badri in the Year 641 H. (1217-1218) [1].

3. *The Zoology of Al-Gahiz.*

In an illustrated manuscript containing the zoology of Al-Gahiz (c. 775- c. 868) there are three illustrations which give us an idea of the shape of the Arabic sword [2].

These illustrations can be attributed to the Suljuki-Arabic school of painting—that school which is known by Art historians—the Mameluke school—which flourished circa *the 14th century*— and contemporary to the illustrated manuscript of Kalilah wa-Dimnah (1355-1360) [2] and two manuscripts of the Makamat el-Hariri at the National Library of Vienna, and at the Bodleyan Library (Oxford).

a. A sitting man wearing a turban with a straight sword at his side, is reading a letter. To the right, behind the central figure, is a master of ceremonies with a staff, to the left an attendant with a straight sword (fig. 8).

b. A veiled woman sitting on a cushion beneath a drawn-back curtain receives the visit of a distinguished man with a beard and a long straight sword (fig. 9).

c. A king (Alexander) wearing a crown and with a drawn straight sword is sitting upon an ornamented throne (fig. 10).

4. *Jamie el-Tawarikh of Rasheed el-Din.*

This illustrated work of Rasheed el-Din, vizier of the Emperor Ghazan and Uljaitu is another important reference in which the author recounted the history of the Mongols, in relation to the rest of the world. He presented the first volume to Uljaitu on April 14, 1306. Of the

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[1] D. S. Rice, *The Aghani Miniatures and religious painting in Islam. The Burlington Magazine,* April 1953. Mr. Rice attributes the illustration to the Mosul school of painting and not to the Baghdad school.

[2] *Ambrosian fragments of an illustrated manuscript containing the Zoology of Al-Gahiz,* pls. I, X, XIII. Uppsala University arskrift, 1946.

copies of made in his lifetime, only four fragments have survived. A manuscript dedicated in two parts, one dated 1307 A. D. is in the library of the Royal Asiatic Society in London. Two other copies of the 14th cent. exist at Top-Kapu Serail Library in Istanbul.

One of the illustrations (Edinburgh Manuscript [1] 1314 A.D.) portrays Hamza and Aly who were sent by Mohammad the Prophet. The two envoys are riding horses and one of them is seen carrying a straight sword (fig. 11).

5. The *Shah-Namah of El-Ferdawsi :*

Another valuable source of figures representing Islamic arms especially the sword is the Shah-Namah. Firdawsi (935-1020) completed his work when he was past seventy. The great epic of 50.000 couplets at once caught the imagination of artists who prepared plenty of illustrated manuscripts of this book, now scattered in all libraries of the world. The earliest copies extant, however, belong to the early 14th century (incomplete volume in the Chester Beatty collection). There are also other 15th and 16th centuries copies in the Royal Asiatic Society and museums of art.

In these various copies of the Shah-Namah, the sword portrayed is either straight or slightly-curved but obviously not the Shamshir Iranian type the strongly curved. Although we know that artists exaggerated in drawing the curvature of the sabre, yet from Islamic patterns of swords still extant of the 15th-16th centuries, it can be said that the two types were known during that period, until the strongly curved sabre entirely replaced the straight sword.

Here, we give some examples of the illustrations portraying the Shah Namah sword.

1. Straight sword : Irij, son of Faridon, King of Persia assassinated by his brothers Salm and Tur. (Herat. about 1430) Bibl. Nat. Paris.

2. Straight sword : Rustum takes Bizhan from the pit, where he has been plung by the orders of Afrasiab, King of the Turks. (Herat. about 1430) Bibli. Nat. Paris.

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[1] Rasheed-Eddin, *Jami-el-Tawarikh*, Circa 1314 A. D.

3. *Slightly curved swords :*

This is from a 15th century copy of the Shah-Nameh, known as «Babur's» now in the possession of the Royal Asiatic Society (London).

Slightly-curved swords :

a. Ruhhan and the sorcerer ; *b*. The siege of Gang-Bihisht ; *c*. Gushtasp slays the dragon ; *d*. Rustum drags the Khan of China from his elephant ; *e*. The battle between Gav and Talhand.

4. Strongly curved sabres.

a. Rustum rescues Bizhan from the dungeon ; *b*. Yazdigird the last of the Sasanian dynasty hiding in the mill.

Early Islamic swords in Top Kapu Serai Museum, Istanbul.

Very few early Islamic swords reached us ; the most important are :

1. Straight sword of Caliph Moawiya, founder of the Omeyyad dynasty (Damascus) and fifth successor of the Prophet.

2. Sword, with the name of the maker inscribed on the blade (not deciphered) also the date (100h.-719 A. D.) and the name of Omar Ibn Abdel Aziz, the Omayyad Caliph, who died circ. (101 h. - 720 A. D.).

3. Sword with a gildet handle and a silver quillon. The year 105 H. is inscribed on the blade, also the name of Hisham Ibn Abdel-Malik, the Omayyid caliph who ruled from (724-743 h.) in Damascus.

4. A straight blade on which is inscribed the name of Saad Ibn Abada, a companion of the Prophet. The inscriptions and Damascening belong to a later period.

5. Sword bears the names of three Caliphs viz. Moawiya, Omar Ibn Abdel Aziz, Harun-el-Rashid and of the Mameluke Sultan Kayit Bay,

which shows that it has been successively in the possession of all those rulers (fig. 12, 13).

6. Sword of El-Musttassim-Bil-Allah, the last of the Abbassides (640-656 H./1242-1258 A.D.) whose reign ended in Baghdad after the Mongol conquest. This sword was carried to Egypt by the caliph's uncle and later was transfered to Istanbul when Egypt was conquered by Selim (1517) (fig. 14).

Conclusion

To sum up, India was to the Moslem countries, in the Middle East an important centre of exporting steel, if not blades. Persia, too, with its iron-ore kept the industry of sword-making flourishing until the 18th century. The medieval Islamic sword, like the Arabic sword, was straight, as is proved by contemporary illuminated manuscripts, and designs on pottery, glass, metalwork etc. The slightly curved blades must have originated in Central Asia at an unknown period and came with the Mongols at about the 13th century. Islamic sabres, dated or datable, until the end of the 14th century are very rare. Both types : the sword and the sabre are noticed to have been in use during the 15th/16th centuries.

A. Rahman Zaky.

Fig. 1.—The first page in the manuscript of Al-Kindi.
Leiden : n° 9223 (Litt.).

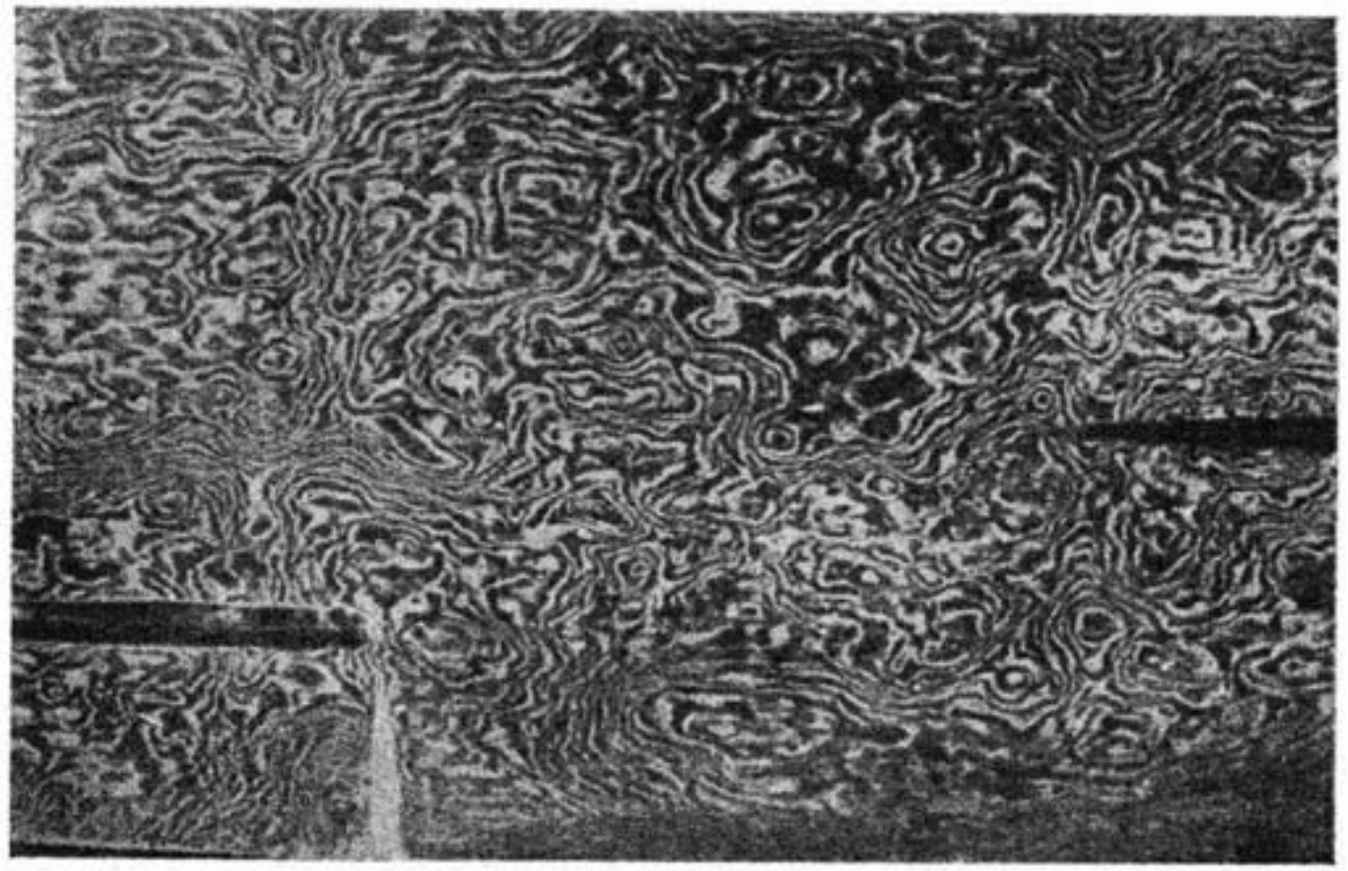

Fig. 2.—Damascene blade from D. K. Ischernoff's Collection.

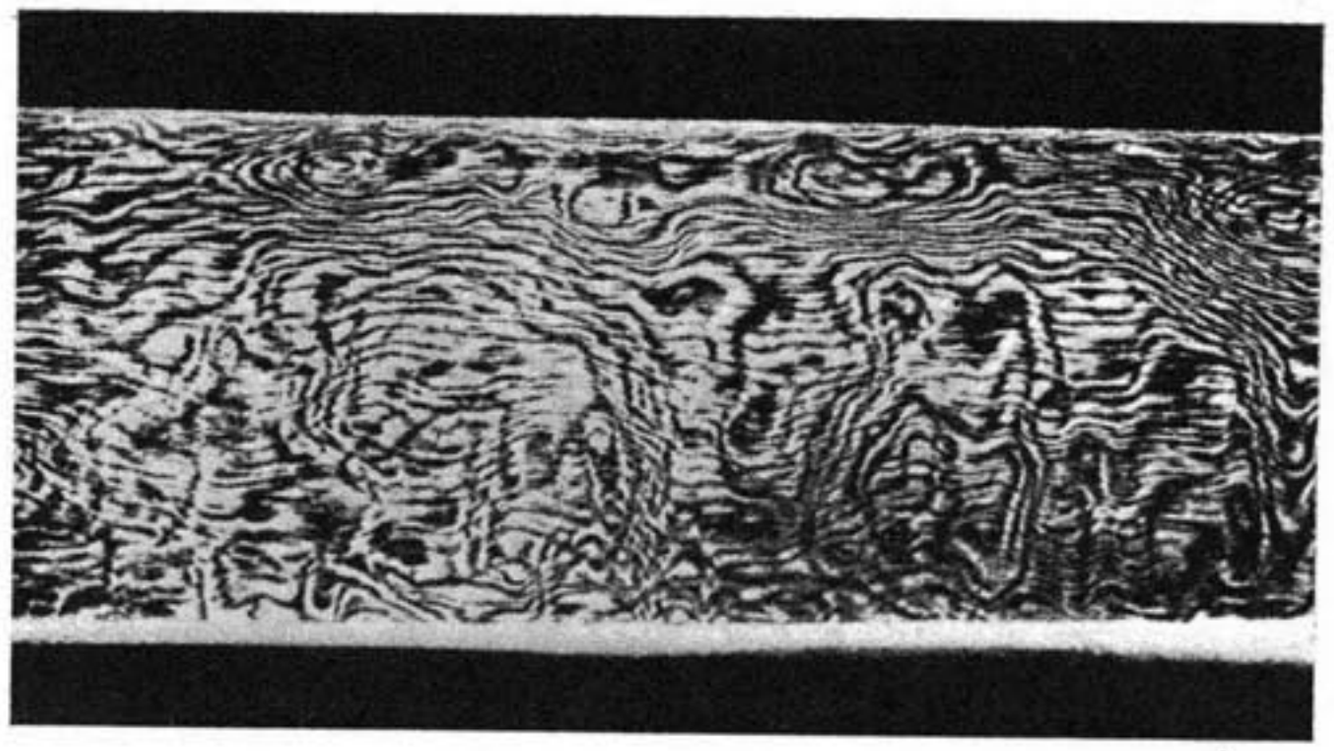

Fig. 3.—Damascene blade n° 1434 from Wallace Collection.
London.

Pl. I

Fig. 4.—Al-Harith in conversation with an Arab who is relating his misadventures with a man of Law. Makamat Al-Hariri Manuscript. About the second quarter of the xiiith century. Bibliot. Nat.

Fig. 5.—An Arab riding his camel. Makamat Al-Ḥariri. British Museum. Circa xiiith century.

Fig. 6.—A governor sitting, escorted by his armed guard. Mahkamat Al-Hariri. Manuscript n° 5847. Al-Wassiti. Circa 1237. Bibl. Nat.

Fig. 7.—A religious illuminated picture representing Mohamed the Prophet. Arab Baghdad School. Circa the first quarter of the xiiith century. From Al-Aghani of Al-Isfahani. Bisur Fares. Une miniature Religieuse de L'école Arabe de Baghdad. *I.F.A.O.*, 1948.

Fig. 8.—A sitting man wearing a turban, with a straight sword at his side. The Zoology of Al-Gahiz. Circa xivth century.

Fig. 9.—A veiled woman (Maisum) sitting on a cushion, receives the visit of a distinguished man (Moawiyah) with a beard and carrying a straight sword (Al-Gahiz).

Fig. 10.—Iskander with a drawn slightly curved sword (Al-Gahiz).

Fig. 11.—The Prophet sending his two envoys-Hamza and Ali (Rasheed el Din : Jami-el-Tawarikh). Circa 1314.

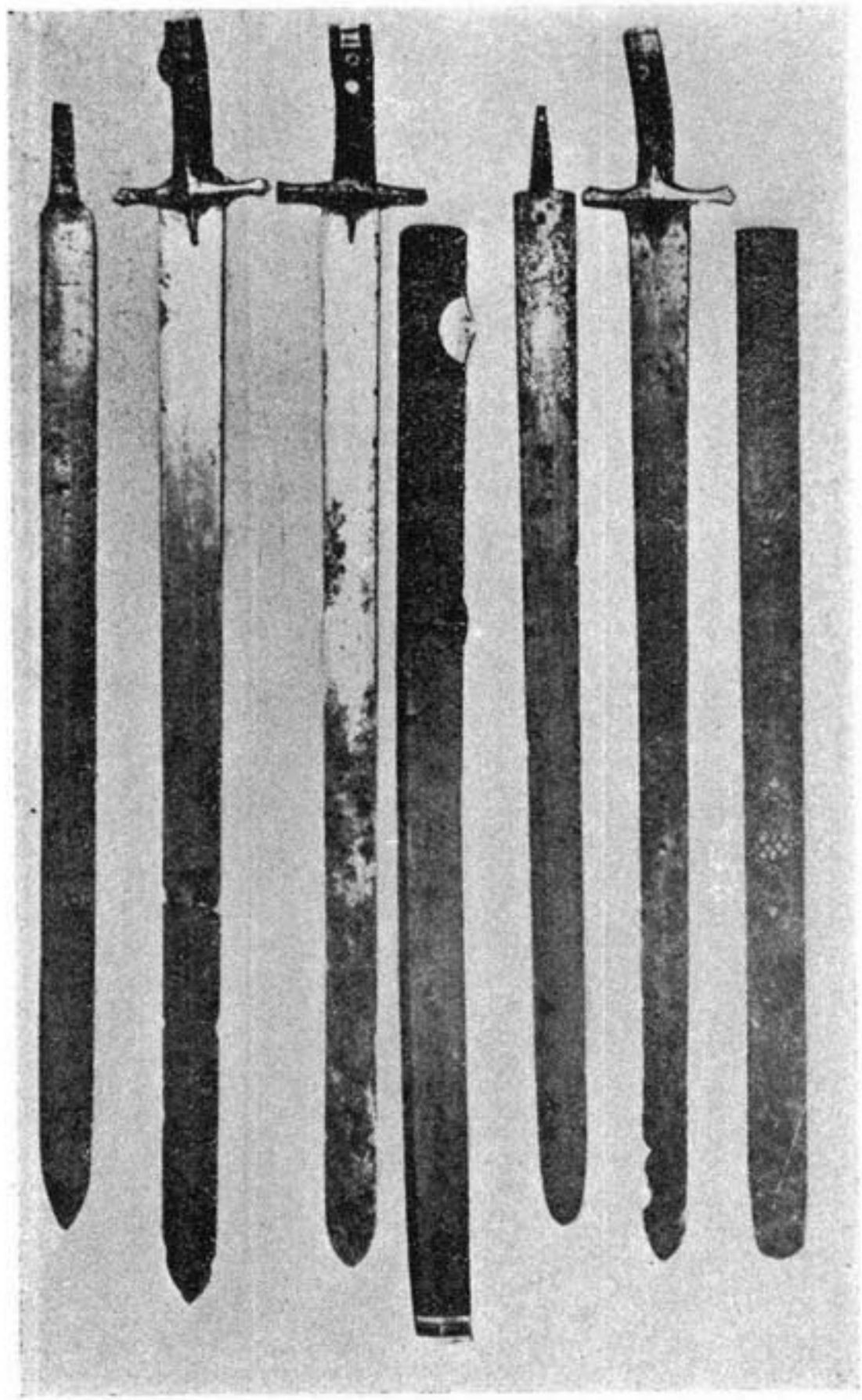

Fig. 12.—A collection of Omayyid and Abbasid swords in Top Kapu Serai Museum. Istambul.

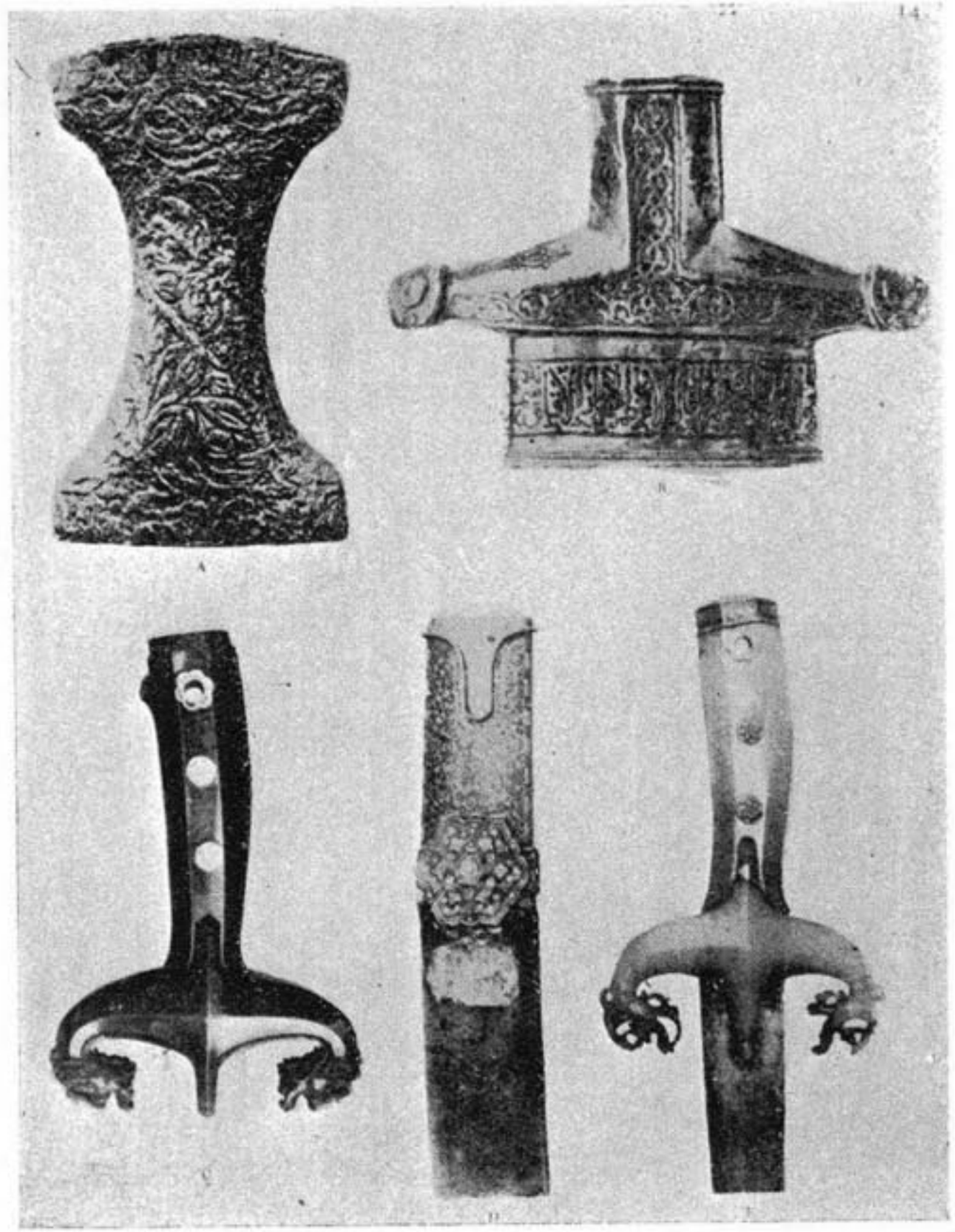

Fig. 13.—Various Arab hilts and cross-guards of early and medieval swords (Pope : S. Persian Art. Pl. 1428).

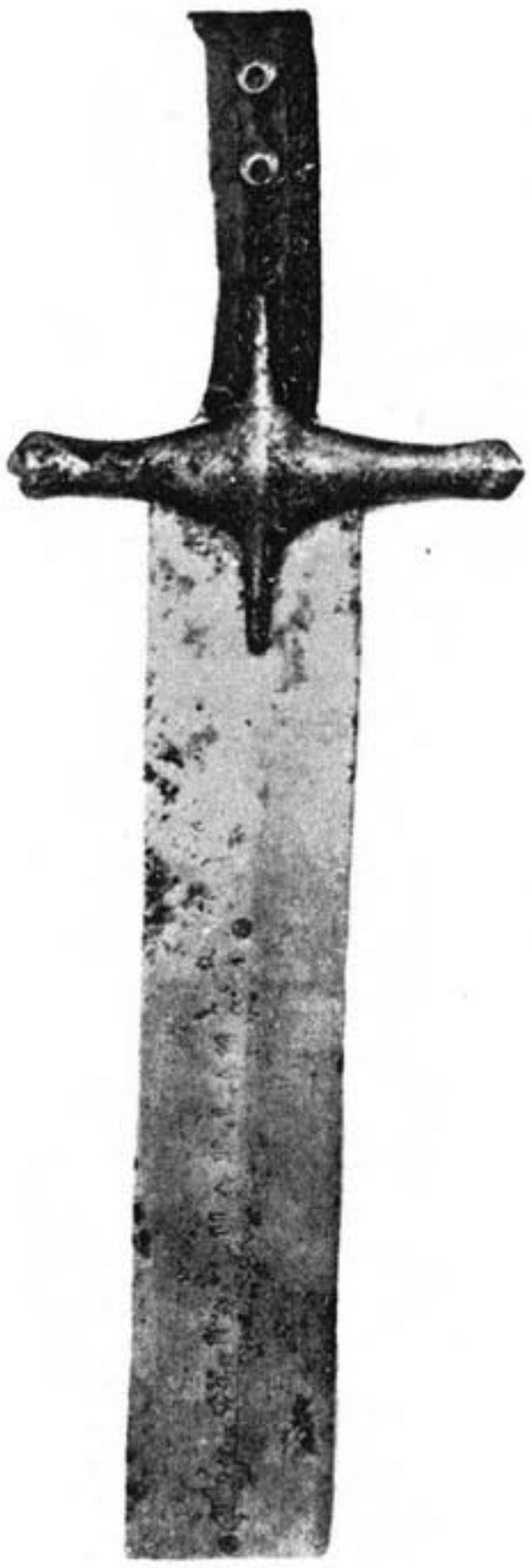

Fig. 14.—The sword of Al-Mutassim bi-Allah, the last Abbasid Calif (1258) Top Kapu Serai Museum. Istambul.

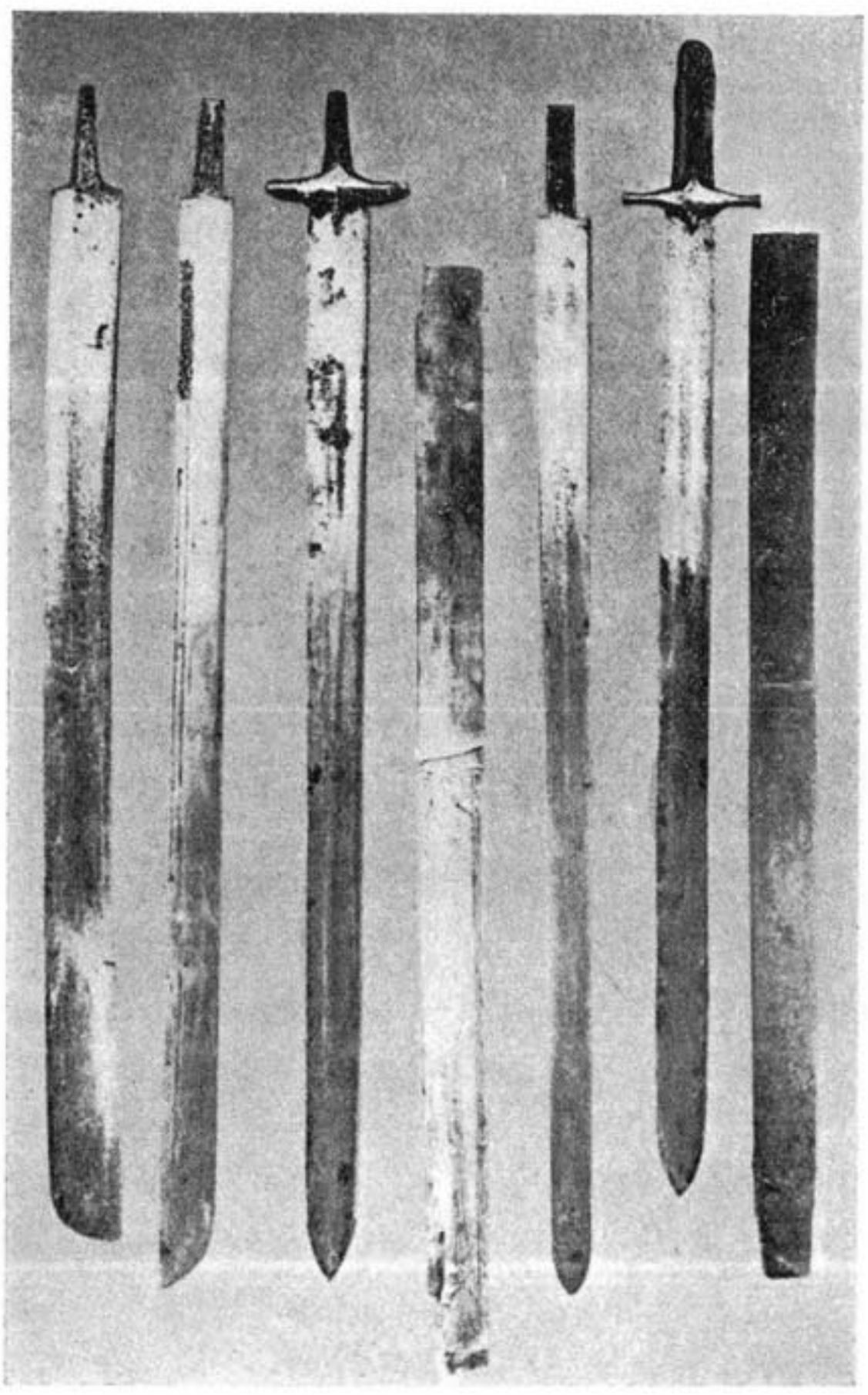

Fig. 15.—Various Egyptian swords (xvth-xvith centuries). Top Kapu Serai Museum.