The “ damascening ” or “ watering ” of choice Persian and Indian arms is not a secret of workmanship, but is due to the peculiar manner of making the Indian steel itself, in which a crystallizing process is set up; when metal of this texture is forged out, the result is a more or less regular wavy pattern running through it. There were early medieval damascened (in German called *wurmbunte')* blades. No difference is made by this in the practical qualities of the blade. (F. Po.)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Fig. |  | Length of Blade from hilt to point. | Weight without Scabbard. | | Material of Scabbard. |
| 4 | French cavalry sword (men), | Inches. | lb. | oz. |  |
|  | pattern 1898  German cavalry sword (men), | 35 | **2** | 6 |  |
| 5 | 321/2 |  |  |  |
|  | pattern 1889 | **2** | 81/2 | Steel |
| 6 | British cavalry sword (officers) | 35 | **2** | 0 | with |
| 7 | British cavalry sword (men), | 351/8&347/8 | *2* | 131/2 | wood |
|  | pattern 1908 (two sizes) | *& 2* | 151/2 | lining. |
| 8 | British infantry sword (officers) | 321/2 | **2** | 3 |
| 9 | British general officer’s sword. | 321/2 | **I** | 12 |  |

2. *Modern Military Swords.—*The present military swords are descended from the straight “ back-sword ” and the Eastern scimitar or talwar. The difference between the curved “ sabre ” and straight “ sword ” has been preserved abroad, not only- in fact but in name (*e.g.* in German, *Degen* stands for the straight, and *Säbel* for the curved, sword), though in English the single word “ sword ” covers both varieties. The shape of the sword has varied considerably at different times; this is due to the fact

that it is practically impossible to decide by trial whether a straight or a curved sword is the better under all circumstances. The trooper can use his sword in three different ways—to cut, to guard and to point; and his success depends upon the training of his horse, his skill in horsemanship, and, above all, upon the dexterity and methods of his adversary. Thus the effect the cavalryman can produce in combat depends upon much besides his arm or arms, and those other con­ditions cannot be reproduced accurately enough to make trustworthy tests. the result is that changes have often been made in cavalry armament under the erroneous impression that the arm used has been the main cause of success. The Ottoman cavalry up to the end of the 18th century was regarded as one of the best in Europe, and so much was it dreaded that the Austrians and Russians in their wars with Turkey at that time often carried “ chcvaux-de-írise ” to protect their infantry against these redoubtable horse­men. The curved European cavalry sabre so long in use may undoubtedly be traced to this cause, the superiority of the Turks being put down to their curved scimitars, though there can be no doubt that horsemanship and dash were really the dominating factors.

The shape of the sword to be chosen depends obviously on the purpose for which it is mainly intended. If for cutting a curved blade, and for thrusting a straight and pointed one, will be adopted. The question naturally arises as to which is the better plan to adopt, and it is improbable that a definite answer can ever be given to it. The French, for instance, in 1822 adopted a curved blade for a short time for all their cavalry, and in 1882 again for a short time a straight blade, and in 1898 again a straight blade. In this much-debated matter the facts appear to be as follows: A determined thrust, especially when delivered by a horseman at full speed, is difficult to parry: if it gets home, it will probably kill the recipient outright or disable him for the rest of the campaign. That this is the case is borne out by the very large proportion of killed as compared with wounded in the British cavalry when engaged with that of the French in the Peninsular War, the French making much use of the point, and their heavy cavalry being armed with a long straight sword. On the other hand, to deliver a bold thrust, while dis­regarding the uplifted sword of the adversary, and leaving one's own body and head open to an impending blow, demands complete confidence that the thrust will get home before the blow can descend, or that the adversary's cut will probably be weakened by a momentary uncer­tainty as to whether it would not tie better to convert the intended cut into a parry. Such confidence, it is argued with much truth, can only be the fruit of long training, especially as it is the natural tendency of all men to cut when excited ; therefore, as the trooper in modern armies will often be a reservist who has not been able to keep up his swordsmanship, or a young soldier liable to lose his head and forget the lessons of peace in the excitement of the *mêlée,* it is considered by many most unwise to adopt a sword with which a powerful cut cannot be delivered as well as an effective thrust. The swords recently adopted by most nations have represented a compromise. They have blades which are nearly straight, but of suffi­cient weight towards their points to enable an efficient cut to be delivered with them. France, however, in 1898 decided on a long straight sword designed wholly for thrusting (see fig. 1), practically identical with that which was in use about a century ago. The following year Great Britain introduced a slightly curved weapon, but in 1908 a new sword was adopted which has a long straight blade and is intended to be used chiefly for thrusting.

As regards the swords worn by officers and men of corps other than cavalry, no remarks are necessary. As long as they are worn they should be efficient ; but with the officer

the sword is largely a badge of rank. From 1901 to 1908 the sword was worn only for ceremonial purposes by British infantry officers, but in the latter year it was again ordered to be worn on active service and at manœuvres. Mounted men in general wear cavalry swords, and swords are also worn by warrant officers and by certain staff-sergeants of dismounted arms and branches.

A good sword should be elastic, so as to stand bending or a heavy blow without breaking or permanent deformation, and yet stiff enough to deliver a powerful thrust without yielding too readily from the straight; it must also be as light as is possible consistently