

cavity of the glass), but they simply concentrate the eyesight, and, by shutting out all unnecessary light, greatly increase the power of vision within the limit required for shooting, not only on the sights of the rifle but on the distant target.

It has been erroneously supposed that they somewhat strain the eyesight; but on using them, it will be found that they help to preserve and strengthen it.

They are much used in this and other countries by riflemen who have no defect in their vision, simply to protect the eyes from the sun when aiming; by these means the firer can see targets and sights clearly, even when the sun is apparently close to the edge of the target, which would be impossible without some such aid.

Referring to the cutting enclosed your correspondent is not quite correct in saying, "by using one of these arrangements all view of everything except the sights and targets is cut off." Now, it was this idea that caused them to be prohibited by our national rifle association, about six years ago, under the impression that they shut out the view of any danger-signal raised near the target from the sight of the person using them whilst taking aim. As a matter of fact, when the orthoptic aperture is close to the eye, as it should be to obtain the full benefit of the orthoptic principle, the firer at three hundred yards' range can see at least fifty yards on each side of the target, and, at six hundred yards, double that with, and at other ranges in proportion. The prohibition referred to was at once taken off after it had been demonstrated to the N.R.A. that any danger to the markers was groundless, and they have been duly authorized at all rifle meetings ever since in the United Kingdom, the colonies, and India. As your journal has great influence amongst the shooting-men of the U.S.A., we venture to send three samples of the kind mostly used by the riflemen of this country; and some of the circulars with "directions for use," that we supply with the articles, and particulars of each article on the list.

Following are the directions for use:—

To a person who has never used an orthoptic sight the advantage is not at first apparent, but on looking through the aperture for a few seconds steadily, as in taking aim at some near object (such as at the back-sight of a rifle or at this printing), the eyesight gradually concentrates itself, and all objects in the line of vision, either near or distant, appear more distinct and with sharper outlines, and in a soft light that is very grateful to the eye.

The spectacles have an orthoptic in one eye-piece and a tinted glass in the other, and, the frame having a double bridge, either can be used on the right eye for shooting. To use the orthoptic, tie the elastic cord that is attached to one of the sides of the frame to the other side, so that when put on, the bridge of the frame fits firmly on the bridge of the nose, and adjust to the eye by moving the frame to the left until the right eye-piece touches the side of the nose. The sights of the rifle (when aligned on the target) will then be seen through the aperture, and a very slight adjustment will place the sights in the centre of it. The orthoptics having two or more apertures, can be moved round in the frame for further adjustment. If the position is "prone," the aperture intended for use should be moved to the left side of the eye-piece, and if shooting in the back position, it should be near the lower part of it.

The hat eyes should be fastened in the rim of the hat, *as near the eye as possible; the smaller end of the apertures next the eye*, and the orthoptic disc adjusted in the same manner as in the spectacles, according to position used in firing.

The apertures should be always cleaned from dust, etc., before using. This should be done with a small piece of soft wood, pointed and inserted in the large end of the aperture; any hard substance being used would alter the form of the aperture and destroy its effect. Before using them in firing it will be found advantageous to have a little snapping practice in order to accustom the wearer to get the sights readily in the centre of the aperture.

A strict attention to the foregoing instructions, combined with a little patience, will enable the wearer to use the ordinary military sights with as much accuracy as the more elaborate sights of a small-bore match-rifle.

So the creation of our new order of chivalry, has been officially notified at last. It is perhaps a curious fact that in our muster of medallion rewards for services in the field, we have not one which adequately meets the peculiar claims occasioned through being mentioned in despatches. In fact, there is really no composite distinction in use in England which can be legitimately designated a genuine military order of chivalry to be worn exclusively by officers, and which illustrates or commemorates some signal act of service in war, beyond the comparatively narrow area of gallantry within which the Victoria Cross operates. Under this new dispensation of the Crown, an officer may both wear the Victoria Cross and the Distinguished Service Order. The latter, in short, is to be the Military Legion of Honor. But it will bear no relation in the freedom of its distribution with the easy grace that has attended the bestowal of its French equivalent. The comprehensive scope of the new order, and the essentially royal character of its foundation, coupled to its relative rank with the interesting Order of the Indian Empire, make it a coveted acquisition.

A German Officer on Infantry Tactics.

By Col. W. W. Knollys in Colburn's.

AFTER the great Duke's long series of victories had been crowned by the brilliant success achieved at Waterloo, our countrymen were so well satisfied with our military prowess that they contented themselves not with resting, but with absolutely going to sleep over their laurels. Not satisfied with pride in the past and present, they complacently disposed of the future. Because they possessed a general and an army which had conclusively shown their superiority over every other living general and existing army, they illogically concluded that their superiority would never again be even questioned. That we might be lulled into a false confidence by our past successes, that military science would ever make any progress, that there could arise able commanders and administrators whose ability would be superior to that of Wellington's successors, and neutralise by skill and numbers our qualifications for war, did not seem to occur to Englishmen. According to them, not only was the art of war henceforth to stand still, but continental armies would not, even as regards, efficiency, be able to raise themselves to our level. The result has been that for forty years we scarcely made any progress at all; and though during the subsequent thirty years much progress has undoubtedly been made, its rate of movement has been much slower than in Germany. The lessons of the past, especially those taught by Wellington and his army, we respect highly, but those lessons have not been properly applied. They should have served us as a scaffolding on which to mount higher, whereas they have been employed as a weight to keep us stationary. We awoke at last to the conviction that as the conditions of war had changed, the means of carrying it on required to be changed likewise. Unfortunately, the Germans had gained and have kept the start of us. Moreover, we have hardly yet shaken ourselves free from obsolete traditional rules, and still allow ourselves to be fettered by forms which are variable, no longer applicable, and, indeed, unsuited now for the carrying out of principles which are immutable. This is especially the case in respect to infantry tactics. As a matter of fact, we do not yet possess a satisfactory system, neither has the subject received in official quarters the earnest attention which its great importance demands.

The Germans had their Wellington in the shape of Blucher, and their Peninsular war in the shape of the war of liberation, while of the glory of Waterloo they were apt to claim rather more than a fair share. They, however, roused themselves sooner than we did from an illusion of perfection. Since their awakening, every triumph has been to them not a justification of repose but a stimulus to renewed efforts at improvement. They have also enjoyed comparatively recent experience of war with a civilised foe. Their experiments and views deserve therefore to be followed with respectful attention. Consequently we feel that we shall be conferring a boon on our readers by taking as the text of an article the translation by Lieut. D. Jung, of the Belgian army, of the German Capt. Baron E. Von Mirbach's "Instruction de la compagnie dans le service de campagne," which translation is published by C. Muquardt, of Brussels. The chief part of this book is devoted to "Ordres de combat," and it is on this part alone we shall write on the present occasion.

Capt. Von Mirbach makes, on the first instruction of the soldier, a remark which, though more especially applicable to the German army, where actual service with the colors does not exceed two and three-quarters years, is still worthy of consideration by us. His complaint is, in substance, that there is too much lecturing and too little practical training, and that an endeavor is made to apply to all descriptions of ground the letter instead of the spirit of the instructions. We trust that, now that we are beginning to pay some attention to the detailed tactical instructions of the company, we shall not commit the same error. As there are infinite varieties of ground and circumstances, it is evident that it is useless to overload the memory of the soldier with an army of rules, but that we should rather seek to impress upon him the main principles, and strive by developing his intelligence and by practice, to train him to exercise a judicious discrimination as to the means to be used. Unfortunately we are addicted to paying more attention to the means than to the end—to fetter tactics with drill. For example, all preliminary instruction in open or dispersed order is carried out on the level barrack-yard. Now, in war, a soldier is rarely called on to work over ground at all resembling the latter.

Commencing with the defence, our author, after some practical remarks on alignment, disposition, and fire, treats of the utilisation of the ground. According to him, the firing line should not be posted on the extreme borders of a wood unless there should happen to be a ditch there to cover the men, but rather from five to twenty paces inside. As to palings, thin walls, and houses, he maintains that they are not really shelters; and that, in fact, the men occupying them are more exposed than protected, especially when under a fire of artillery. In occupying a village he advocates rather the construction of shelter trenches than