

picture is then transferred to collodionized glass plate, which has previously been talced, precisely in the same manner as when transferring a stripping film. The plate is then leveled and the fluid eburneum poured on and allowed to set, and afterward dry. When the picture is then stripped off, it is finished; or, in the case of sheet eburneum or ivory, it is simply softened in cold water and squeegeed upon the glass in the same manner as the gelatine skin is treated in the stripping film process for negatives.—BR. JOUR.

THE MILITARY BICYCLE.

The art of war is now borrowing from applied science all the resources that are at the latter's disposal, and there is nothing up to velocipedism that is not contributing to the service of the army. For a few years past, the Germans have been using the velocipede for the rapid carriage of despatches, and, on this side of the Vosges, the French have not neglected to put to profit the advantages of an analogous service, a corps of velocipedists having been organized in the army. The type of apparatus adopted is the bicycle, such as is seen in Fig. 1, which shows a French army velocipede, during the period of a campaign, commissioned with the quick carriage of an urgent dispatch.

The English have gone beyond such a use of the velocipede for dispatch sending, and have endeavored to use it for the carriage of ammunition. A very curious experiment of this kind was very recently made at London with a multicycle apparatus constructed by a Mr. Singer.

This truly curious apparatus is shown in Fig. 2. It consists of a series of bicycles, six in number, each carrying two men and hauling a small vehicle loaded with ammunition. The bicycles are arranged in a single file, instead of being two or four abreast, thus much facilitating the operation of the apparatus and diminishing the surface of resistance to the wind. The speed on a good road varies from $9\frac{1}{2}$ to 15 miles per hour. The rubber tires are made in such a way as to secure them from being injured, even on roads that are somewhat stony.

The starting of the whole is under control of the man who sits in front. Recently the affair was run through one of the most frequented streets of London, and was found to turn easily in a much more circumscribed space than could have been done by an ordinary carriage, and to turn with great speed through the streets without any accident resulting. The body of men selected to maneuver this multicycle consists of experienced volunteers, who are capable, in addition, of going through all military evolutions.

Fig. 3 shows another phase in the use of the military bicycle as practiced in England, the illustration of which we borrow from the *Illustrated London News*.

A small body of cyclists, ten in number (two sections and a half section), with officers and bugler, marching in usual order of half-sections—th. t is, by "twos"—are attacked by cavalry. At the word of command, "Halt!" "Prepare for cavalry!" "Form square!" each man dismounts; and the respective second half-section move up alongside their first half-section, so as to form a line of four men in front and rear, with a half-section of two men between them. Each man



FIG. 3.—DRILL OF ENGLISH MILITARY BICYCLES.