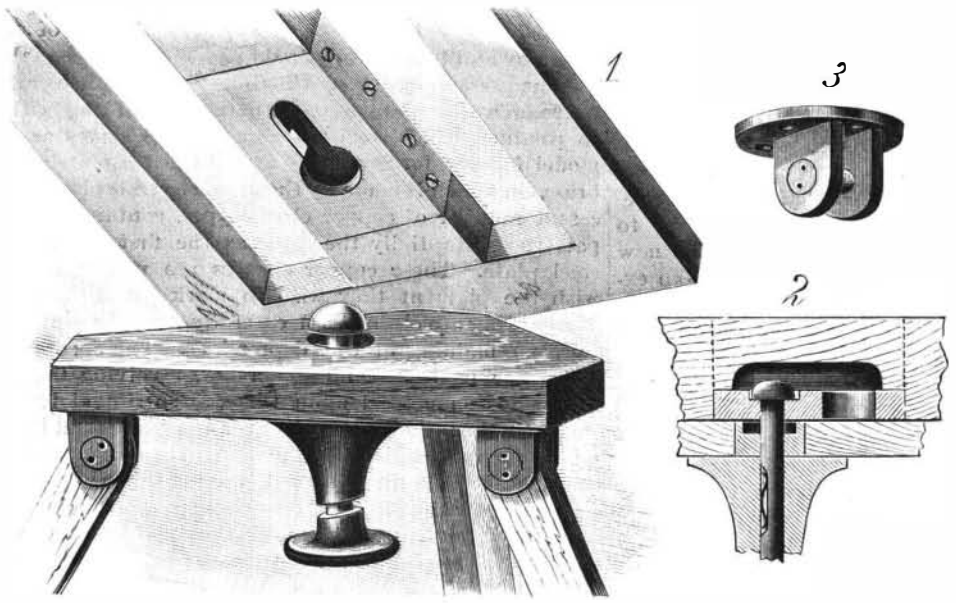
IMPROVED CAMERA CLAMP AND TRIPOD HEAD.

The well known tripod screw for securing a camera firmly to the head of a tripod has many disadvantages, which have several times been pointed out. Yet it still continues to be one of the most indispensable articles a photographer has to use.

The object of the device shown in Figs. 1 and 2 of the engravings is to overcome the defects incident to the common screw clamp, by avoiding all separable parts and the wear of the screw thread, and at the same time to permit the camera to be easily and quickly secured to the tripod. A truncated cone shaped casting, having a projection provided with a socket or seat set flush with the top of the tripod head, is secured by screws to the under side of the head. The lower face of the casting is planed or filed off on a bevel. Passing through the hole drilled in its center is the fastening spindle, having a solid head turned on its upper end, and a thumb actuated disk, held rigidly by suitable screws, at its lower end. The upper face of the disk is beveled to correspond with the bevel on the casting above.



WARNER'S CAMERA CLAMP AND TRIPOD HEAD.

Located in a slot in the spindle is a very light steel spring (see Fig. 2), which, in pressing against the walls of the hole, holds the spindle by friction, in any position, as it is elevated or depressed, and at the same time allows the spindle to be freely rotated. When the spindle is not secured to the camera, its head is drawn down into the seat in the upper face of the casting, so that nothing will project above the surface of the tripod head.

A light metal plate, having its ends bent up around the sides of the central bar of the camera bed frame and secured thereto by screws, as shown in Fig. 1, has a key hole slot in which the head of the spindle of the clamp fits. The wood of the camera bed is dug out back of this slot, forming a recess, as shown in Fig. 2. It will be noticed this method of fastening the plate to the camera bed frame secures unusual strength, since the pull on the screws is at right angles to their length. To prevent any possible slipping of the camera after it is secured, a slight depression is provided in the inner surface of the plate at the end opposite the entrance slot, clearly seen in Figs. 1 and 2.

To clamp the camera on the tripod head, it is only necessary to rotate the spindle by the thumb disk until the two beveled faces are parallel with each other, then to push the spindle upward until the faces meet, which leaves the spindle head projecting above the tripod head. When the camera is then set upon the tripod, the head of the spindle enters the key hole slot, and by a slight movement lengthwise the head is brought directly over the seat of the slot. By slightly rotating the spindle by the fingers with the thumb disk, the beveled faces act upon each other like a cam, and at once draw down the spindle head into the seat of the key hole slot, firmly clamping the camera bed to the tripod head. A reverse movement allows the spindle to be pushed up so that the camera may be quickly removed.

It will be observed that the clamp is very simple, effective, and strong, is in fact more durable than a screw, not liable to get out of order, and with it a camera can be very quickly adjusted to a tripod.

The inventor prefers the triangular form of a tripod head, as shown in Fig. 1, and has the tripod legs rigidly secured thereto to avoid the wear and racking motion incident to detachable legs, which frequently occurs when photographing in a brisk wind. The fastening for the leg of the tripod is shown in Fig. 3, and consists of a round plate, provided with two projecting ears having a pin riveted between them, which passes through a hole in the extremity of the tripod leg. The plate is secured to the underside of the tripod head by screws. This construction makes a very rigid and steady bearing for the tripod head and camera. Both may be carried about on the shoulder without in any way straining the clamp.

Different sized cameras may be used on the one tripod head. The improved clamp may be fitted to any tripod head or camera. The inventor, Mr. M. P. Warner, Holyoke, Mass., or the manufacturers, The Scovill Manufacturing Co., 423 Broome Street, New York, are prepared to furnish clamps and fit them to tripods. Further information may be had by addressing either party.

THE NEW MILITARY MULTICYCLE.

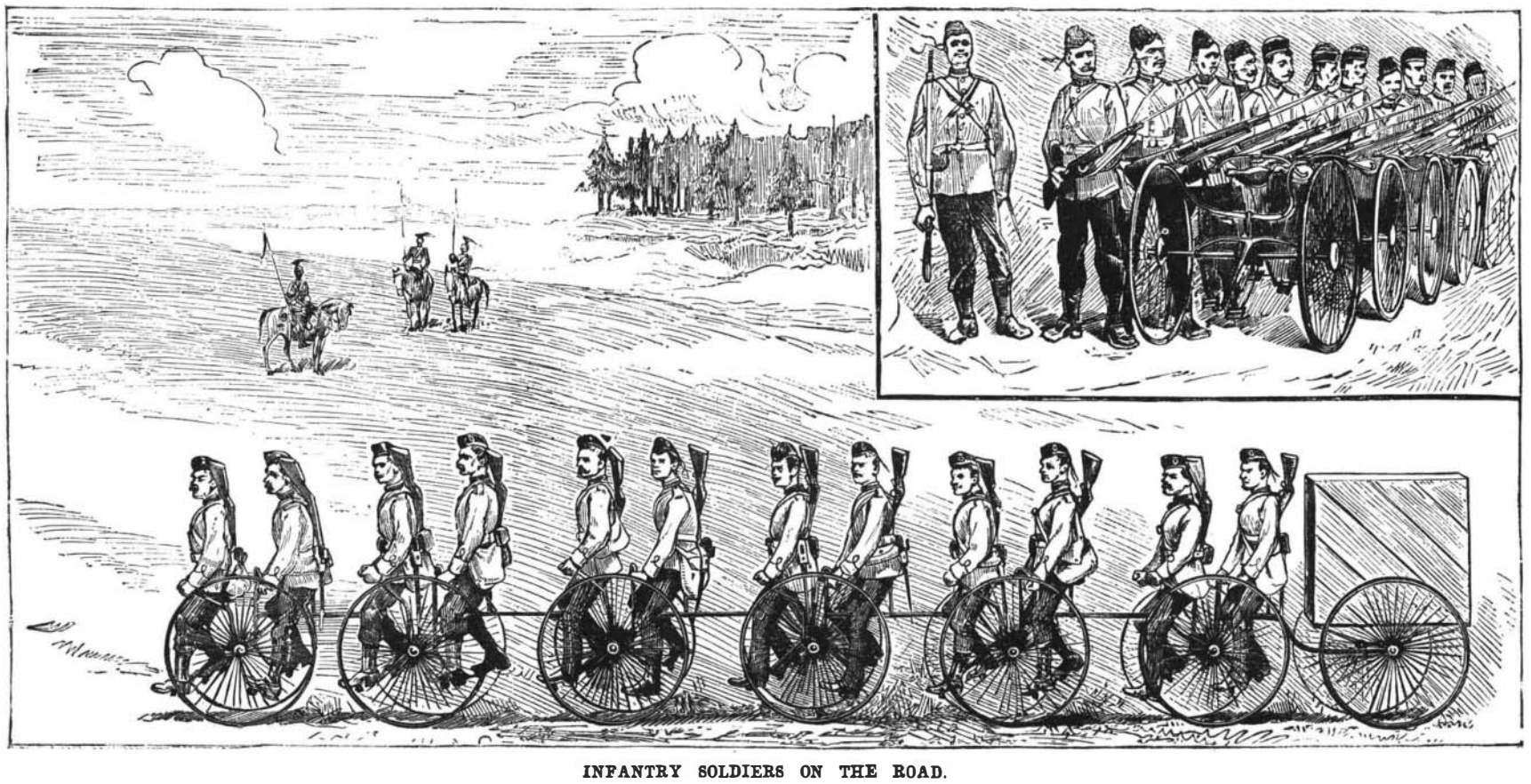
This machine, manned by ten men, which may recently have been seen traversing numerous London thoroughfares, is Messrs. Singer & Co.'s latest adaptation of their "Victoria" or "Four-in-Hand" quadricycle, and is intended for the rapid transport of infantry from one point to another. When fully manned, it carries twelve men, who can take with them, if necessary, a light baggage cart or ammunition wagon. By thus mounting the riders in single file, instead of two or four abreast, the machine is both rendered more manageable and it also presents less surface to a strong head wind. The speed got out of this machine is surprising. Ten miles an hour is a low average rate, and sixteen have been easily accomplished. It is less affected than any other velocipede by rough roads, and passes easily over a newly metaled track. All the tires are wired on the Otto principle, so that they cannot be greatly damaged by cuts from sharp stones. The whole control and steering of the machine is in the hands of one man, who found no difficulty in managing it even in the most crowded streets. It turned easily in less space than a hansom would have needed, and threaded its way among numberless vehicles without mishap. The crew in charge of this multicycle are all trained volunteers, who will be able to execute intelligently any military evolutions which may be demanded of them. The machine is now being severely tested at Aldershot by authority of the War Office.—*The Graphic.*

AP ROBERTS' NOVEL TRUNK.

A NOVEL TRUNK.

The trunk herewith illustrated is the invention of Mr. G. I. Ap Roberts, of River Falls, Wis. It is constructed at one end with an inclined bottom on which are secured one, two, or more bearings, each carrying a wheel, as shown in the sectional view, Fig. 2. The wheels do not touch the ground when the trunk stands on its bottom. The end opposite the inclined bottom is provided with handles. When it is desirable to move the trunk, the handles are grasped, and that end lifted until the trunk rests upon the wheels, when it can be rolled in any desired direction. It is apparent that this invention is also applicable to sample cases, tool chests, etc.

IT has been demonstrated that platinum wire may be drawn so fine as to be invisible to the naked eye, although its presence upon a perfectly white card can be detected by the touch, and can be seen by the aid of a small magnifying glass when the card is held in such a position that the wire casts a shadow.



INFANTRY SOLDIERS ON THE ROAD.

THE NEW MILITARY MULTICYCLE NOW BEING TESTED AT ALDERSHOT.