



FIG. 1.—FRENCH MILITARY VELOCIPEDISTS.



FIG. 2.—USE OF VELOCIPEDES IN THE ENGLISH ARMY.

then grasps his machine at the point of balance, and turns it outward, so that they form a square, with the men inside, each machine overlapping by a few inches those next to it.

The rifles are lifted out of their clips as the machines are lowered to the ground, and are then placed on the ground for a moment, while the machines are grasped with both hands by the framework and placed upside down, so as to stand in a reversed position, resting on their handle bars and saddles.

Lastly, each man, as he lies or kneels down behind his machine, sets his wheel spinning around with a touch of his finger. Such a fence, apart from the *chevaux de frise* of bayonets behind it, forms an obstacle which few horses, if any, would face; and the men inside, in perfect security, can pick off the advancing horsemen with deadly effect.

The position, so far as mounted horsemen are concerned, is practically impregnable; while the infantry rifles with which cyclists are armed, have great advantages, in accuracy and

steadiness of aim, over the carbines of dismounted cavalry. *Scientific American.*

#### EXTRACTS FROM A MACHINIST'S NOTE-BOOK.

I notice a thing about a shaper built by the Lodge, Davis, Co. of Cincinnati, which strikes me as being rather cute. The cross rail which carries the table and chuck is secured to the body-casting same as any other shaper of its class, by clamps and cap screws, except that instead of the cap screws being placed equi-distant along the clamps, the first two are quite close together, the third one being a little farther from the second, the distance to the fourth screw being still further increased, while between the fourth and fifth the space is about twice as great as between the first two, there being five small screws on each side. Thus the greatest strain, which is at the top, is met by the most resistance. I have never before seen the same good judgment displayed by gibbing in this manner.