

## A SWIMMING SCHOOL FOR CAVALRY HORSES.

BY W. G. FITZ-GERALD.

No amount of improvements in artillery and small arms has done away with the cavalry arm in modern warfare; and the question of getting horses for this branch of the service is a very serious one. Now horses, it may not be generally known, display almost as much individuality as human beings; and this remark as to the diversity of their natures applies with special force to military chargers, which must of necessity be recruited in all parts of the world, from Hungary to Buenos Ayres.

The army of every great power has a veterinary department, whose officers and men are charged, not only with the maintenance and care of many thousands of war horses, but are also responsible for their purchase in the first instance, and likewise their education, which is almost as important as that of their rider.

Just consider how mixed a few "bunches" of cavalry horses may be that have just been received in Paris, Berlin, Vienna, Rome, or London. Some have been bought on the Siberian steppes; others among the hills of Bohemia; others, again, in our own Western or Southern States; some in Ireland; and so on.

All of them have been differently brought up, amid surroundings as varying as those of their human masters, and now their military education must begin. Some of them may not even be broken to the saddle. They are all pretty much of one age, but

their health may vary, and their temper certainly does.

One of the first things to be done with the equine recruit is to accustom him to the sound of drums and military bands as well as sharp trumpet calls, volleys of musketry; and last of all the trembling beast has to face and stand by roaring and thundering artillery.

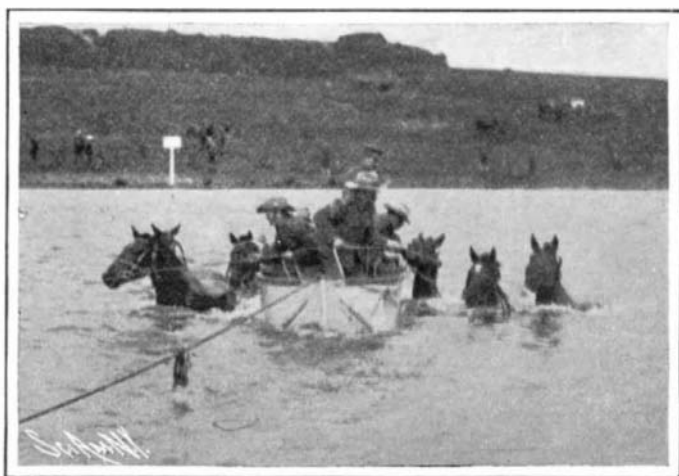
You would have thought all these more or less severe tests, but alas! there is one more coming for the poor horse, that must make him wonder—if horses wonder at all—whether life is worth living. This is his swimming exercise, which is so vitally necessary a part of his training, in order that in a time of need, when an enemy may have blown up and destroyed existing bridges, he may readily cross flooded rivers, taking his fully-equipped rider with him, and even hauling boats, laden with stores, provisions, and ammunition, from one bank to another.

Most of the horse recruits have a more deep-seated aversion from water than has even the workhouse tramp. It is almost pitiful to see them tremble on the brink, and strive to get away from the unstable element. Many of the great powers of Europe set apart special sections of a river, lake, or reservoir for the compulsory training of cavalry chargers in this manner.

As the system obtaining in most armies is identical, it will be enough if we consider that practised at Aldershot, the great military camp of England. Hither are drafted horses from most of the other military camps, such as Hunslow, York, Winchester, Colchester, etc.,



Assembling the Boats.



Swimming Across a River.



Packing Up the Collapsible Boats.

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for this is their swimming "university." In the nature of things, the "professors" are not overburdened with clothing, and it is to be feared no gentle measures are used with recalcitrant pupils.

At first coaxing is the order of the day. The animal is well fed with barley on the morning of his first lesson, and then he is led forth casually, as though for a little ordinary exercise, by the military stableman in whose charge he is. He is led down to the river's edge, where are assembled a number of specially-made collapsible boats of canvas and ash framework. These may be used to compel and tow the reluctant equine swimmers; or on the other hand, they may be filled

with men and stores and towed to deep water by more proficient pupils. The horse is permitted simply to look at the water at first, and then he is patted and coaxed in, first up to his fetlocks, and then to his knees. Beyond this he will rarely go at the first lesson. He is kept at this depth for some little time, and then taken for a little run on land.

He is brought back again, however, and coaxed in a little deeper, and if he show any sign of pluck and readiness to take the plunge into deep water, the cavalryman attending him divests himself of the scant clothing he carries, and prepares to swim by the horse's side to encourage him with voice and hand, and probably take him back again after he has made one trip.

Sometimes heroic measures of a violent nature are resorted to, and a timid or trembling pupil is hauled or thrown into deep water without further ceremony. Sometimes this has the desired effect, and the animal finds that after all the experience is not so very terrible; indeed, he may well find it most refreshing on a sweltering August day on the Hampshire Downs, where there is little or no shade from the burning sun. On the other hand, such a

course may give a horse a fright of which it may be difficult or even impossible to cure him. Some of the horses indeed—more particularly those from Asiatic Russia, where the rivers are frozen to a depth of several feet for the greater part of the year—have an unconquerable aversion to entering the water to any depth; and if they are found

to be quite hopeless, they are drafted into other branches of the service. At the same time, commissariat horses and mules, as well as artillery teams, are educated in this way, besides the chargers of the cavalrymen. The men chosen for this work are all veterinary officers, commissioned and non-commissioned, and as a rule they are patient and kindly men, with an extensive knowledge of the leading peculiarities of all the horses of the world.

## A SIMPLE RIM FOR DETACHABLE TIRES.

The latest improvement in the method of fastening a double-tube pneumatic tire to the rim of a wheel in such a way as to make it readily detachable, has just been brought out by the Bryant Steel Wheel and Rim Company, of Columbus, Ohio. The new rim is the invention of Mr. Richard S. Bryant, of this company, and it is the simplest device we have seen for securing an ordinary clincher tire.

The construction of this new rim can be readily seen from the cross-sectional cut, Fig. 1, while the ease with which a tire can be detached when mounted on such a rim, is apparent from the photographs.

Referring first to the cross-section, the reader will

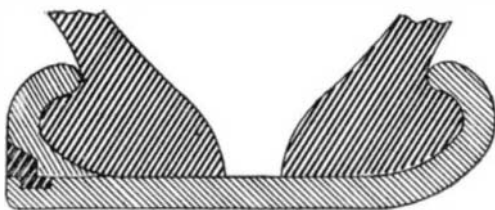


Fig. 1. Full-Size Cross-Section of Rim, Showing Clincher and Locking Rings on the Left.



Fig. 2.—Removing the Small Locking Ring.

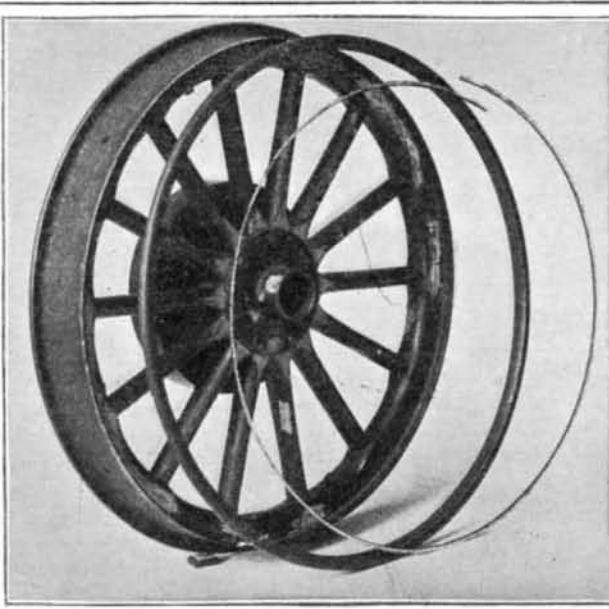


Fig. 3.—The Rim with Clincher and Locking Rings.

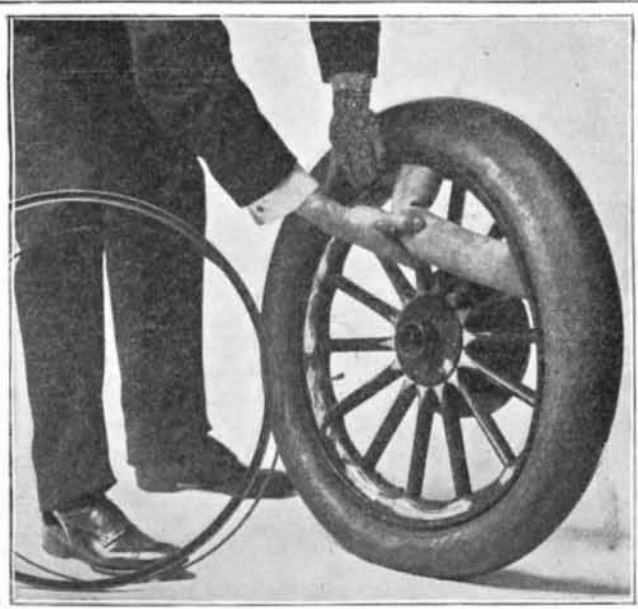


Fig. 4.—Removing an Inner Tube.

A NOVEL RIM, MAKING POSSIBLE THE REMOVAL OF A DETACHABLE TIRE WITHOUT THE USE OF TOOLS.