

alternately. These wheels have been severely tested in the Boer war, and have proved thoroughly reliable; while practice shows that damaged spokes, if they are of wood, admit of much easier repair than those made of metal.

Axle-tree boxes, each containing two rounds of ammunition, are fitted, and can be used as seats, when manœuvring, by two of the detachment. The lids of these boxes are of specially-toughened steel, and are raised when the gun is in action so as to form bullet-proof shields. Limber and waggons are, like the carriage, strong and good, but something extravagant in design.

The German carriage differs *toto cælo* from the English. The trail, instead of being built up of plates and angles, consists simply of two pieces of steel tube sliding one over the other telescopically. For firing, the tubes are pulled out; while for travelling they are closed up and fixed with a pin.

One end of the smaller or inner tube is fitted with a steel bracket to carry the axle-tree, and to the upper part of the same bracket is attached a steel case covering the break arrangement—a combination of recoil-buffer-cylinder and coiled spring. On top of this case the gun recoils 42 inches on being fired; and when the recoil energy is absorbed, the spring acts and returns the gun to the firing position. A transverse screw admits of a traverse of 3 degrees right or left in relation to the carriage, so that the gun may be aligned on any object within this arc without moving the trail. The wheels (4 ft. 6 in. in diameter against the English 5 ft.) are entirely of metal. The advantages claimed for the carriage are lightness and great steadiness during firing. It is said (and we have no reason to doubt it) that “jump” is so completely eliminated that a coin placed on the rim of one of the wheels will not be shaken off by the shock of firing. This result is obtained by the unusual length of the trail when fully extended, in combination with the great recoil allowed to the gun. But in this connection it is worth remarking that neither a long trail nor a long recoil is a