The hexagonal bore is not a new investion, some of the Russians having used it in the late Baltic campaign; but it is doubtless Mr. Whitworth's wonderful accuracy of construction that is destined to give it celebrity, by arming it with a power and correctness it wanted before.\* An explosive ball has also been introduced by Colonel Jacob of Eastern celebrity, which from its greater flight will prove, when perfected, a more deadly arm than the old spherical explosive ball invented and forgotten years ago. With the daily improvements in science, we may soon expect to see Colonel Jacob's in general use, unless the same principle applied to Whitworth's hexagonal ball should be found preferable.

To those who are amateurs of the rifle, I would recommend a pamphlet, written by Chapman. and published in New York; it is chiefly intended for those who delight in the infantine or octogenarian amusement of peppering atarget, but it also contains many points of interest. Among other subjects discussed are the following:—The quantity of twist requisite in a rifle barrel the gaining twist, as opposed to Mr. Greener, and the decreasing twist—the. size of ball best suited to different distances—the swedge, by which a ball. being cast rather larger than requisite, is compressed into a more solid mass the powder to use, decreasing in size of the grain in proportion to the diminishing length of barrel—the loading muzzle, by which the lips of the grooves are preserved as sharp as a razor, &c. The pamphlet can easily be procured through Messrs, Appleton, of New York and London.

\* The trial between the Enfield and the Whitworth rifles cannot be yet considered conclusive, as there was a difference in the bore of the rifles, and also Mr. Whitworth used a different kind of ball for penetration to that used for long range.

THE END.

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