

after one of the roughest passages on record, and could scarcely be expected to show his average "form." It follows, therefore, that the actual and undoubted success of his demonstration had a far greater value than might at first sight appear. In earlier Canadian trials of this same rifle, as has been mentioned, he was able to show extreme rapidity of fire, seven out of ten batches of 50 rounds each being fired well within two minutes per batch. Sir Charles wished to give us a sample of this rapidity by firing a series of 50 rounds. Apart from being out of "form" himself, he was further handicapped by the fact that, in place of having ten of his ingenious carrier-chargers ready to hand, he had less than half the number, and they had to be recharged in turn to make up the requisite number of rounds, and this work being accomplished by unaccustomed hands caused several perceptible pauses in the reloading of the rifle. Under all these adverse conditions, however, the 50 rounds were fired within 2 minutes 10 seconds, about the same time as was occupied in firing the second batch of 50 in the endurance test made in Canada. With this result as a basis, an expert volunteer marksman was set to fire a similar number of rounds from the Service rifle. The conditions were, to fill the magazine and use it as a magazine rifle throughout, without the cut-off, but the marksman was allowed to have the whole 50 rounds disposed at his side ready to hand. After following the smooth operation of the Ross straight pull, and

the ease of loading, it was almost painful to watch the efforts of the expert with his Lee-Enfield and loose cartridges. The time occupied in firing 50 rounds from the Service rifle was 4 minutes 40 seconds, or $2\frac{1}{2}$ minutes longer than with the Ross. In one case there was no hurry, and no taking of the rifle from the shoulder; in the other, all was hustle and quick spasmodic actions, to say nothing of loose cartridges dropping about in a manner eloquent of awful waste during the strenuous moments of active service.

Altogether, about 100 rounds were fired from the Ross rifle in our presence, and if this personal test cannot be accepted as conclusive, it was sufficient at all events to convince us that the inventor has brought to a state of practical perfection a magazine-arm of extraordinary capacity, sound alike in design and in construction. It seems well-nigh the ideal of what a military rifle should be, and the fact that it has emerged from tests so stringent as those imposed upon it by the Canadian authorities is sufficiently eloquent to need no further elaboration in demonstrating its fulfilment of every possible Service requirement.

For sporting purposes the Ross straight-pull magazine rifle has been adapted to the '256 Maunlicher, the '303 and the '370 calibres, and at the present it is in contemplation to supply it to the '400. The average weight with a 26 in. barrel is about 7 lbs. 8 ozs., and the total length is 46 in.

A Practical Darkroom.

BY H. M'BEAN JOHNSTONE.

While development and developers are subjects often enough treated in the columns of the photographic magazines, the workroom wherein all this is done is so seldom mentioned, and even when spoken of given only a passing notice, that apology for a thorough talk on it ought not to be necessary here. In almost everything else we are able to profit by the mistakes of others; but here, because we so seldom see more than our own workshop, we are obliged to learn largely by experience. It, therefore, is

my intention to give a description of what seems to me to be a fairly convenient darkroom.

The darkroom which is most satisfactory (I am taking it for granted that it is to be devoted exclusively to photographic purposes) is the one in which everything is right at hand, and where, if there be only one or two plates to develop, there is not a lot of trouble to go to get ready. It must be large and roomy and have plenty of fresh air. Many and many is the time when I have had to go into a