ticular cartridge depends upon its own power to withdraw itself from the barrel, it will be obvious that the cartridge cannot remove itself from the barrel before it explodes.

A gun which loads and fires itself is certainly a novelty, and presents many interesting features and possibilities to any one who takes an interest in implements of warfare.

The gun may be trained in any direction by turning the crank which operates a tangent screw, the stem of which projects from the platform immediately below the cartridge box seen on the top of the tripod, whilst a fine adjustment in elevating may be obtained by turning the small hand wheel, which forms a part of the diagonal telescopic brace which supports the rear of the gun. By loosening the three-handled screw immediately below the central standard, the gun may be turned completely round, and by loosening the thumb screw of the telescopic brace, the gun is absolutely free to be moved up or down or in any direction while firing. If, however, it is desired to have a definite stop to the horizontal play of the gun, as, for instance, when firing upon a bridge, a pass, or a ford, or upon earthworks, the gun may be sighted between the two points, and adjusted by the thumb nuts on the tangent screw stem, when the gun will be free to operate between these two points, but will not go beyond them. Fig. 1 is a perspective view of the gun. Fig. 2 is a longitudinal central section of the weapon. A is the block or bolt which slides freely after the manner of the cross head of a steam-engine; B is the barrel; C the locking device for securing the block to the barrel at the instance of discharge; D is the cocking lever; E, the carrier which draws the cartridges out of the belt and deposits them in the feed wheel G; F is the belt wheel which draws the belt of cartridges into the gun; H is a connecting rod made slightly elastic by being provided with a strong spring; I is a crank which does not, however, turn completely round; L is a point of resistance, against which the cocking-lever, D, strikes at each rearward motion of the block; K is a shaft connected with the trigger, which operates upon the sear and also upon the controlling chamber J; M is the extractor which starts the cartridge from the barrel; N is a bar which holds the locking device C in position, and which raises it or unlocks it at each rearward motion of the barrel; O is a casing surrounding the barrel, which may be used, if desired, as a water jacket.

RORAIMA

OUR readers will be interested in reading the following letter, which has just been received at Kew, from Mr. Im Thurn, in confirmation of his telegram already published (*NATURE*, vol. xxxi. p. 342), announcing his successful ascent of Roraima:—

Georgetown, February 4, 1885

I have just sent a most brief telegram (such things are expensive here) which will, I hope, give the first news that Roraima has been ascended; and I much wish I could write even a brief report to go by this mail, but ever since I have been back (we got back four days ago) I have been in bed with the most severe attack of fever and ague that ever befel me, and, though the doctor assures me that I have now turned the corner, I am so weak as to be quite unable to sit up. However, before next mail I must manage something. And in the meantime I send a local paper which purports to give an account of the expedition derived from myself. The main facts are tolerably correct, but the details are much blurred.

We were quite successful in getting to the top, and have found that the plateau is by no means the isolated spot it has sometimes been supposed to be. It was, however, a great disappointment that, our way up being

so extremely laborious, it would be quite impossible, without a very large expenditure in somewhat smoothing the path, to carry up hammocks, &c., provisions, and firewood (for there are no trees on the top and it is bitterly cold)—it was a great disappointment, I say, that we could only explore the top for a short distance from the point which we first reached. I see, however, no reason to believe but that the whole top is of one character. The scenery is in the highest degree wonderful. I made many fairly successful sketches (considering I am no artist), which will give a very fair idea of the mountain and of the scenery on the top. As I wish to keep the original sketches for the present, to copy them at my leisure, I have just handed the half-dozen most characteristic amongst them to a photographer here, who has before been fairly successful in copying drawings for me, and I hope to send you copies by next mail. The vegetation (on the top) is most wonderful, but somewhat scanty and quite dwarf. I have between 300 and 400 species for you. I have also some living plants (*Heliamphora*, three most exquisite Utricularias, two of which are, I fancy, new; and a few other things), but, as these want much nursing, I have put them into wardian cases, and shall take them home for the present. (I miss Jenman now, and have throughout the expedition, immensely.)

Yours very truly,

(Signed) EVERARD F. IM THURN

NOTES

AT the moment of going to press we have received from Sir E. J. Reed a communication protesting against some of the statements made in our article last week on "The Relative Efficiency of War-Ships," and pointing out that the system of construction advocated by him was greatly modified during the ships' progress. So far from wishing to deal unfairly with Sir E. J. Reed's views, one of our chief objects was to support his protest against the existing state of things, by suggesting that scientific experiments should be resorted to to settle some of the questions on which doubts have been expressed by contending authorities.

WE regret to learn that M. Milne-Edwards is lying in a precarious condition.

OUR readers will regret to learn that Prof. Bonney will resign his post as secretary of the British Association after the Aberdeen meeting. Prof. Bonney, we believe, feels compelled to take this step mainly on account of the inroads which the work of the Association makes upon his time. No one will regret his retirement more than the council and his fellow officials.

M. BOUQUET DE LA GRUYE has received a mission from the French Minister of Public Instruction to proceed to Teneriffe in order to study the variations of gravitation according to altitude.

WE have received from the Royal Society of Public Medicine of Belgium its recent monthly tables. With the present year it assumes a new field of usefulness. Founded originally in 1876, it was composed of men who by their position or special knowledge were able to participate (1) in determining the cause of mortality in general, and the circumstances which affect public health; (2) in informing and assisting the authorities by special studies and researches; (3) in preparing the medical topography of Belgium; and (4) in discussing at annual public meetings questions presently relating to this work. The Society is formed of eleven local subdivisions, each sending a number of members to form the general council. But in addition to these subdivisions, for administrative purposes, the Society is also divided for the scientific service into a number of zones limited according to the physical nature of the districts. The medical topography of the kingdom, and all questions relating to it, are studied according to these zones. During last year the Society made a