

it is necessary that a check should be put to the liveliness of its motions. This might be effected by mechanical means, of which the simplest seems to be that the gun, on recoiling, should have to raise a heavy series of weights, which are prevented from running it out again by a simple self-acting pull. As soon as the gun is loaded, the pull might be detached by means of a lever, and the gun run out without any other assistance than the recoil force stored up in the weights. It is almost a pity that our Secretaries for War and their immediate subordinates are not called upon to pass an examination in elementary mechanics, — omitting those chapters in which the calculus is involved.

We remember to have seen some such idea put forward in a paper on barbette gun carriages, in a paper which was read before the United Service Institution. The same ingenious mind which produced those very clever inventions, might well be directed to this very important matter of checking recoil in light guns.

For some time we have heard no mention of gun cotton as a substitute for powder, but a letter in the *Times* shows that in private circles, at least, the many great advantages of this material have not been disregarded. A gentleman writes to say that he has long used gun-cotton cartridges, and finds them every way superior to gunpowder. He has subjected them to trying tests, even to drying before a kitchen fire (an experiment which we are inclined to regard as of a rather ticklish nature), and expresses his full satisfaction with the results. Gun cotton, especially for small arms, possesses a host of advantages over powder, cleanliness, absence of smoke, little recoil, all matters of the utmost importance. Hard hitting, too, is enumerated among the advantages, and this peculiarity might probably enable the soldier to carry an equal amount of propulsive material in a much less weight—a very great desideratum.

Another discovery of no trifling importance has resulted from the recent trials. It has hitherto been supposed that a laminated system of armour possesses vastly less resisting power than a solid plate of the same thickness. It is now found that if the different laminae are thoroughly riveted together, their strength is but little inferior to the solid iron plate. When it is considered at what great cost the solid plates are made, and with how much less certainty their homogeneity is secured, the importance of this result will be manifest. This somewhat tardy discovery will be well applicable in the construction of men-of-war, and may save thousands to the nation. It is true that there is scarcely a journeyman mechanic of two years' experience who would not have pointed out this fact from his own knowledge; but we cannot expect Government Committees to condescend to the A B C of the inquiry on which they are set. A Government committeeman is heaven's own, and is supposed to know everything, the only thing to be regretted is, that in eight cases out of ten he knows nothing whatever of the subject which he is appointed to consider.—*United Service Gazette*.

FOREIGN TROOPS IN NEW YORK.

DEPARTURE OF MAXIMILIAN'S BODY-GUARD FOR EUROPE.

The *New York World* says: This morning there leaves New York by the Quaker City for Brest, France, a portion of the late Emperor of Mexico's (Maximilian's) body-guard, which arrived from Vera Cruz on the

French men-of-war *Phlegethon* and *Bouret*. Along with this guard, which numbers about 140, there were fifty or sixty civilians belonging to the *corps diplomatique*. These soldiers formed the celebrated Foreign Legion that did so much execution among the Mexican guerillas, and which fought faithfully and heroically beside their ill-starred imperial master until his tragical fate at Queretaro. It was composed of contingents of volunteers from France, Austria, Belgium and Prussia, and formed a complete army in itself, embracing all the branches of the services from engineer to cavalry, and as they formed a picturesque group around the office of the French Consul at Bowling Green, one would almost fancy he was in a little garrison town in Mexico. Conspicuous among them were the *Hussars de l'Empereur*, dressed in what was once a brilliant dashing uniform of a light red; the jackets of the officers were richly braided with gold lace, and the long boots of untanned leather were surmounted by tight fitting trousers. The Gens d'Armes were dressed in a much more serviceable and less gaudy uniform composed of a dark blue blouse, and a loose paletot with light blue facings, and a small kepi of dark blue. Another corps, called the *Contra Guerillas*, were dressed precisely similar to the Gens d'Armes, with the exception of the kepi, which was of a light blue with dark cords. This corps was especially detailed to hunt down the guerillas that infested the vicinity of the city of Mexico. As most of these men had been prisoners among the Mexicans, they were treated with true magnanimity, which consisted of stripping them nearly naked, and permitting them to live in luxurious poverty on twenty-five cents a day, which would hardly purchase a single meal in a restaurant; in addition, they were subjected to the courteous remarks of their foreign hiring guards, who only wanted the most trivial excuse to despatch the 'foreign hounds,' as their prisoners were lovingly termed. In consequence of this raid on their wardrobes their uniforms were hardly in that condition to honor a dress parade at West Point; and to add a more curious effect to this motley group, the Mexican civilians were attired in huge sombreros, of every shape and pattern, some of fine felt, trimmed with gold lace, and others of a coarse wisp of straw; the huge brims were so disproportionate to the crown as to resemble a plank road around a bundle of hay, and the dark sunburnt faces beneath, with the keen haggard look that a residence in a tropical climate usually gives, heightened the effect of this appearance. Some of the less fortunate, and among these was a huge Algerian soldier, that had been in the French army, who was attired in a horse blanket with a hole in the centre, through which he puts his head and allows the ends of this improvised mantle to hang in graceful folds around his otherwise curiously attired person; and though he was rather picturesque, one could hardly compare him to a haughty cavalier of Charles the Second's time; then, as if to heighten the motley appearance of this curiosity in clothing, he wore a pair of short pants that hardly reached to his knees, and being minus of shoes or stockings, resembled nothing under the sun so much as a burly Dutchman at Coney Island in bathing costume. Notwithstanding these little disagreements, so disgusting to the toilet-loving Frenchman, they enjoyed the ludicrous effect as much as the gaping crowd, who stared at these newcomers in mute amazement.

But, *rice la bagatelle*, they had truly lost all but honor, and as most of them were dashing, sprightly young men, they cared little for the toils of the past, and were as light hearted as a crowd of bounding schoolboys, and Parisian persiflage was bandied round in great good humor, considering they were returning to *la belle France*, from which they had been separated for five years. A good number have consented to remain in this country, especially the discharged soldiers from the French army that had taken service under Maximilian. Many a French fireside this coming winter will be entertained with exciting tales concerning "*Quand j'étais dans le Mexique*," etc.

THE ATLANTIC CABLES.

It must have appeared extraordinary to those who have watched the condition of the submarine telegraphic lines connecting Europe with America that while the 1865 cable, which was picked up from the depths of the ocean after it was thought it was irremediably lost, has since its junction with America, remained intact, that of 1866 has been ruptured twice. The explanation of this is, however, exceedingly simple. It appears that when the shore end of the 1866 cable was being laid from the Great Eastern the vessel was in a fog, and unfortunately this part of the line was laid over a shoal patch, about 40 fathoms in depth, so that the icebergs which so constantly occur in that region, reaching, as they often do, to the bottom, cut the cable. The wire has been completely repaired, and it has been resolved upon to raise the shore end of it as soon as possible from its present bed and remove it to a deeper channel. Meanwhile, with a view to more perfect communication between Europe and the United States, the ship *Chiltern*, which had been commissioned by Telegraph Construction and Maintenance Company, sailed on Tuesday last with the telegraphic wires, of the material of which we gave an account some time ago, which are to be laid from Placentia, in Newfoundland, to the island of St. Pierre, in the Gulf of St. Lawrence. She carries 320 miles of wire, which is placed in new water-tight tanks. There is no doubt that, until perfect telegraphic communication is established between Europe and the United States in such a manner as to avoid adopting the assistance of the land lines in New Brunswick, Nova Scotia and Newfoundland, our correspondence will be subject to the interruptions by which it has so often been retarded during the past year. With a view, however, to temporarily remedying the evil, it is contemplated to establish throughout Nova Scotia a series of land lines from Sydney, via Halifax, to the United States and Canada; should these fail during the winter, and there is no doubt that they will have to bear the brunt of snow storms and sustain the weight of superincumbent ice, it will become absolutely necessary to lay submarine lines between Halifax and Boston in 1868. A Franco-American Company is, we understand, in course of formation, with the object of laying a submarine cable from Ushant to Boston, so that it will be advisable for us to take such measures as will obviate the necessity of availing ourselves of the new projected line. This is not a subject, however, in which Englishmen alone are interested; the whole world will doubtless have more or less anxiety for its success.—*London Times*, August 19th.