

of the Howe to dinner, when a toast will be given to the memory of those who took part in the great sea fight. Three hundred and ninety-nine non-commissioned officers and men of the regiment were embarked on board Lord Howe's fleet at this period, viz.:—Queen Charlotte, 134; Royal George, 31; Defence, 80; Majestic, 77; Russell, 77. On the Queen Charlotte, besides Lieut. Neville killed, there were 11 non-commissioned officers and men wounded; on the Royal George, two privates killed; on the Defence, Ensign Baycott wounded four privates killed, one wounded.

### British Volunteers Under Criticism.

The Volunteers have been exposed recently to the fire of that sort of criticism that is always to be expected at this time of year. Two years ago a well known military critic of the "Times" gave the public the benefit of his views about our citizen army, and did more harm than good. This year's attack is of a very similar character. This critic, like many other military men, is disposed to blame the Volunteers for not coming up to an ideal standard of military efficiency—to blame them in short for being Volunteers. The truth is that military men have set up a standard for the Volunteers which is quite unattainable under present conditions. They do not, we believe, find fault out of pure "cussedness," or with any intention of throwing cold water upon the Volunteer movement. That time has long passed, and military men have now jumped to the opposite extreme of expecting too much from the force. Amongst other things the "Times" critic made great capital out of the shortcomings of a battalion which manoeuvred badly in a thickly-wooded country near Aldershot. But this and other examples of individual ignorance by no means proved the Volunteers as black as they have been painted. It is at best but a thankless task to pick holes in the organisation of a public-spirited body such as the Volunteers. These attacks are, of course, directed more at the system than the officers and men themselves; yet it is difficult to criticise strongly without giving pain. In a certain sense, however, the critics are paying a compliment to their victims. They are blaming them for not being as well trained as regulars, and their officers because they have not fully mastered the ever fluctuating science of tactics. "The Volunteer force," say the critics, "appears to have reached a point beyond which it cannot advance." "It is larger, but not more efficient than thirty years ago." But is not this altogether a mistaken and pessimistic view? The proposed remedy is to bring the Volunteers more into line with the militia. Of this we had some indications from the witnesses who gave evidence before the commissioners appointed to inquire into the working of the Volunteer Acts. With much of that evidence we entirely disagreed, and particularly with the sugges-

tions of some of the colonels who wished to bring about the introduction of a semi-military discipline. The "Volunteer Service Gazette" rightly insists that it is impossible to do this, and that the only way to deal with an insubordinate Volunteer is to dismiss him. But after all, the discipline of the Volunteers has very little to do with the defects of organisation upon which the critics insist. These defects can best be overcome by increased support from the authorities, and by unloosening the State purse strings more freely. But we certainly do not consider that any attempt to turn the Volunteers into a sort of modified Militia, or to insist upon the introduction of an irksome discipline, will tend to bring about the desired standard of efficiency. — United Service Gazette.

### Steering Gear for Warships.

During the recent naval manoeuvres there have been a large number of breakdowns and narrow escapes from collision, due solely to defective or inefficient steering gear. This, however, is not the first time that the naval manoeuvres have pointed to the necessity of devoting special attention to this small, though most important, portion of a vessel's machinery. For many years, the Admiralty have fitted their own type of steering gear (termed the Admiralty screw gear) to nearly all warships, and with the vessels built prior to about three years ago this gear answered fairly well, but, with the introduction of the very large battleships and fast cruisers, their lordships were advised by engineering experts to adopt the Harfield compensating gear, the great advantage of which is its increase of power in the same proportion as its increase of load, whereas the older gears suffered a decrease of power when the load was increased. An important point in connection with the compensating gear is, that it enables the ship to be easily steered by hand when steaming full speed astern, whereas the screw gear, when adjusted for handwork, is practically useless for steering a vessel going full speed astern. The "Sirius" and "Spartan," two of the new second-class cruisers, were fitted with the compensating gears, and on recent trials some splendid results were obtained with them. In each case, with the ship going full speed ahead at the rate of 23 knots, the rudder was put by steam power from amidships to hard-a-starboard in eight seconds, and with the hand gear from hard-to-port to hard-a starboard in 34½ seconds; when going full speed astern the rudder was put from hard-a-starboard to hard-a-port by hand in 70 seconds. In the "Sybill" and "Pique," fitted with screw gear and tried a few months since, it was found to be impossible to steer by hand when steaming astern. As a result of these trials, together with the fact that during the manoeuvres of this year and last no breakdown of the compensating gear was recorded, the gear is to be fitted to nearly all the ships in course of construction.—Army and Navy Gazette.

### The "Engine of Victory."

"NOT SO VALUABLE AS SMOKELESS POWDER."

M. Turpin on Thursday (says a Reuter's telegram) communicated to the Committee on Inventions at the French Ministry of War particulars of an important improvement upon his invention now under consideration of the committee. He has not yet patented the improvement, but he said he confided the details to the committee, trusting to their loyalty not to divulge the secret. After explaining this modification, M. Turpin offered to reply to any criticisms the committee might make, and afterwards asked when he could receive the committee's decision upon his invention. The president stated that a sub-committee was about to be appointed, and that a reply would be given to him as soon as possible, perhaps even before the holidays. A representative of the "Matin" on Thursday interviewed several members of the committee, but they refused to make any statement. One, however, intimated that M. Turpin's invention was not of supreme importance. The "Echo de Paris" publishes similar information, and says that competent persons, while regarding M. Turpin's invention as valuable, do not think "a priori" that it is likely to revolutionise war tactics to such an extent as did the discovery of smokeless powder some years ago.

### Force of a Cannon Ball.

In dwelling upon the wonderful power of the guns of the Indiana, Albert Franklin Matthews, in an article on "The Evolution of a Battleship" in the "Century" for July, gives illustrations from the recent Chilean civil war, showing the effectiveness of the smaller sizes of breech-loading rifle guns.

A shot weighing 250 pounds from an 8 inch gun of Fort Valdivia, in Valparaiso harbor, struck the cruiser "Blanco Encalada" above the armor belt, passed through the thin steel plate on the side, went through the captain's cabin, took the pillow from under his head, dropped his head on the mattress with a thump, but without injuring a hair, passed through the open door into the mess room, where it struck the floor, and then glanced to the ceiling. Then it went through a wooden bulkhead an inch thick, into a room 25 x 42 feet, where 40 men were sleeping in hammock. It killed six of them outright and wounded six others, three of whom died, after which it passed through a steel bulkhead five inches thick, and ended its course by striking a battery outside, in which it made a dent nearly two inches deep. It was filled with sand. Had it released deadly gases, no one knows what damage it might have done.

A 450 pound missile from a 10 inch gun in the same fort struck the same vessel on its 8 inch armor. It hit square on a bolt. The shell did not pierce the armor, but burst the outside the vessel. It drove the bolt clear through, and in its flight the bolt struck an 8 inch gun, completely disabling it. Such is the power of the small-sized guns.