

According to *Broad Arrow* of 27th July he has appeared in a new character, and as he is a good imitation of Buckingham barring the licentiousness, so, according to our contemporary, he makes a possible GUY FAWKES barring the courage.

It is evident the people of England owe Messrs. GLADSTONE and LOWE a deep debt of gratitude for the manifest care taken of their interests—especially such of the mercantile class as have anything to sell—the experience of ordinary political life does not exhibit a Premier and Chancellor of the Exchequer in the light of scientists in artillery and munitions of war. Why was not JOHN BRIGHT present to witness the experiment?

Happy England! where practical science is like BURTON's description of puritan inspiration:—

"A liberal net that needs no pains
Of study, industry, or brains."

The post was shattered and the glazing only cost £100. Cheap wasn't it?

"Those who, like ourselves, were anywhere within half a mile radius of Downing Street on Thursday, must have been alarmed by the roar of a sudden explosion, and a shock which brought to our vivid remembrance the catastrophe in the days of Fenian ascendancy in Clerkenwell. The noise came from the direction of the saluting-ground in St James's Park; but there were no guns there, and if there had been, no piece of ordnance that we know of could have been capable of making such a sound, unless it had been rent in pieces by a more than usually recalcitrant specimen of a studded projectile. Our first impression was that the Treasury or the Houses of Parliament had been blown into the air; but, having pressing business to attend to which prevented our making immediate inquiries, it was not until the mystery was solved by a statement in the *Echo*—a very proper organ for such a report—that our anxiety as to the safety of "My Lords" was relieved, and the truth made manifest. We have heard rumours before of Mr. Gladstone's Popish tendencies, and it now appears that he has been experimenting in the character of a nineteenth century Guy Faux, having had a large post put up in the garden adjoining his official residence, in which several holes were bored and filled with gun cotton; the explosion of which by means of electricity caused the deafening roar that alarmed the neighbourhood, and shook the glass out of the Government windows in a shower of dangerous fragments. There is something in this experiment so akin to what recently occurred at Sheerness, when the authorities were handling a torpedo which turned upon them like a snake that ungratefully stings its benefactor, that we are at a loss what to think. Who would have supposed the members of the Government had so soon recovered from their alarm, and were again playing with these dangerous combustibles? or if such a thought could have entered into some wild imagination, who would have dreamt that the Treasury garden had been selected for the site of the experiment? We are not surprised that Mr. Lowe and Mr. Gladstone should have appeared at the garden gate, white and agitated, as if uncertain for the moment whether they should not find the sky blackened with the falling fragments of the ruin they had wrought. However, all's well that ends well. There is a good job for the Government glazier; and the frightened sentries, though nearly blown off their legs,

have happily recovered their "five wits." Mr. Gladstone had better reserve his next experiment with gun cotton for the 5th of November."

The following portion of a speech in the British House of Commons on the 19th July, is taken from the *Broad Arrow*—its value with reference to the all important question of Artillery is sufficiently apparent.

It would appear that the cost of throwing a 600 lb. shot would be seven pounds sterling, and the machinery for the same £3,483 stg. Twenty thirty-two pounder guns of cast iron on the old system with gun and all complete would cost £1,600; one round each would cost say five pounds, each gun would be safe to fire at least five hundred shot; on the whole £2,500 sterling worth of ammunition, the "Woolwich Infant" is totally disabled after firing £560 worth at her eightieth round.

The lesson for the political economist is the value the country has secured by adopting the monster. To the practical man whether a gun throwing a 600 lb. bullet cannot be manufactured of cast iron as cheaply or nearly so as twenty 32-pounders, and sustain the effect of discharging the same weight of metal, or about 500 rounds without breaking down.

THE WOOLWICH INFANT.—Lord Elcho, speaking on a subsequent vote, submitted that it was evident the gun of the future would be heavier than the 25-ton gun tried against the Glatton, and asked a series of questions with reference to the 35-ton Woolwich Infant. In the first place he wished to know how many such guns had been made, how many had stood the trial, with what charge the trials were made, and the number of rounds fired at the trials as compared with trials of 35-ton guns previously; whether the system of rifling was approved; and lastly the cost of a 25-ton gun. Sir H. Storks said he was unable to answer all these questions offhand, but would do his best. The only 35-ton gun yet completed was the Woolwich Infant, which was designed for the naval service. It had fired in all 73 rounds, with charges varying from 75 lb. to 130 lb. After the 63th round, a slight crack was found in one of the grooves. Five more rounds, however, were fired, and the result was satisfactory, for it was found the crack did not extend. The result was a conclusive proof of the great strength of the system of construction. Some changes might be made in that system with a view to obtain further development of power, but enough had been done to show that this 35-ton naval gun was the most powerful in the world. The system of rifling adopted was what was called the Woolwich system. He had received no report with respect to injuries done to the rifling. The cost of the gun was—for wrought iron £2200; carriage, £220; platform, without gear, £318; 100 rounds of ammunition, £700; the full cost was £3590. Lord Elcho believed the system of construction on the whole to be good, but the question was, whether the system of rifling would stand the wear and tear to which it would be subjected. Now, he knew that intelligent mechanics had grave doubts on this point. Though only one of these guns had been tested in the test house, two had been fired, the second having only fired two shots. With

regard to the first, he wished to know with what charge of powder the gun was loaded after the discovery that it was cracked. What number of battering charges was it supposed to be able to stand? Were the further trials with the battering charges or with the reduced charges? According to his information the gun had split in nine out of a total of ten grooves in the A or inner steel tube, and it had failed when fired with the first full battering charge. The condition of the manufacture of these guns was that the normal charge should be 115 lb. of powder and a 700 lb. projectile; and supposing his information to be correct, the gun had not fulfilled the conditions which had been thus laid down. He spoke in no spirit of cavilling, but from a wish to save public money and get the best gun for the public service. He hoped, therefore, that the War Office would institute a full inquiry into this matter, and not be guided solely by what might be said by the parents of this adopted child. It had no right to be called the Woolwich system of rifling. It was really a French system, known among experts as "Nobody's child."

The following description of what may truly be called the original from which all modern breech loading weapons have been taken is from the *United States Army and Navy Journal* of 24th August. It is accompanied by an engraving showing a well made musket of the old flint lock style very neatly got up differing very little in outward appearance from the Enfield Rifle of the present day, and although it is a veritable breech loader on the design of which very little improvement has been effected during the present age of mechanical wonders, it carries a ramrod apparently for use in case of failure in the mechanism and as a cleaning rod.

A slight sketch of the career of the talented inventor and his reckless fate, as far as his connection with North America is concerned, will be found in the fourth volume of the *VOLUNTEER REVIEW* under the heading of "The Revolt of the British American Colonies."

With the talent for blundering so peculiarly displayed by all the British Generals charged with restoring order in the Colonies, Sir H. CLINTON the Commander-in-Chief had decided on an expedition to South Carolina in the close of the year 1779, the wise object to be attained being nothing less than the conquest of the Middle and Northern Colonies through the Southern.

After the capture of Charleston which placed South Carolina in the power of the British, Sir H. CLINTON left Lord CORNWALLIS in command and returned to New York.

The plan of campaign as unfolded by that officer was an overland march through North Carolina, and to this end he divided an originally small force into numerous detachments who occupied small posts or moved about between given points on the frontiers of North Carolina.

Those detachments were frequently composed of Provincial troops (loyalists) who had enlisted on the British side, and loyal militia raised in the occupied districts. At the head of those bodies the most dashing and dis-