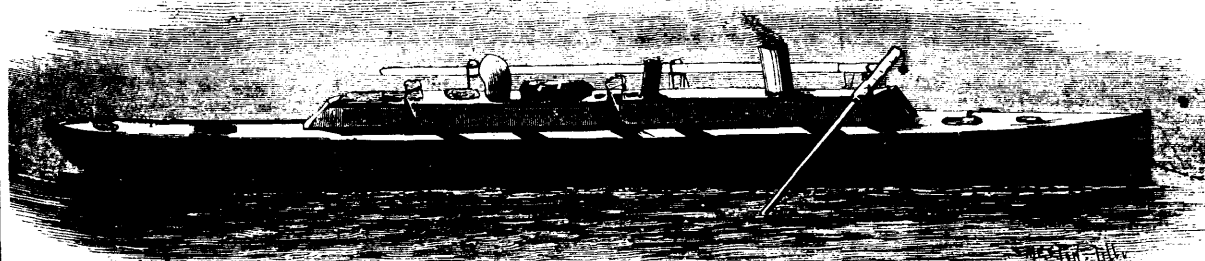
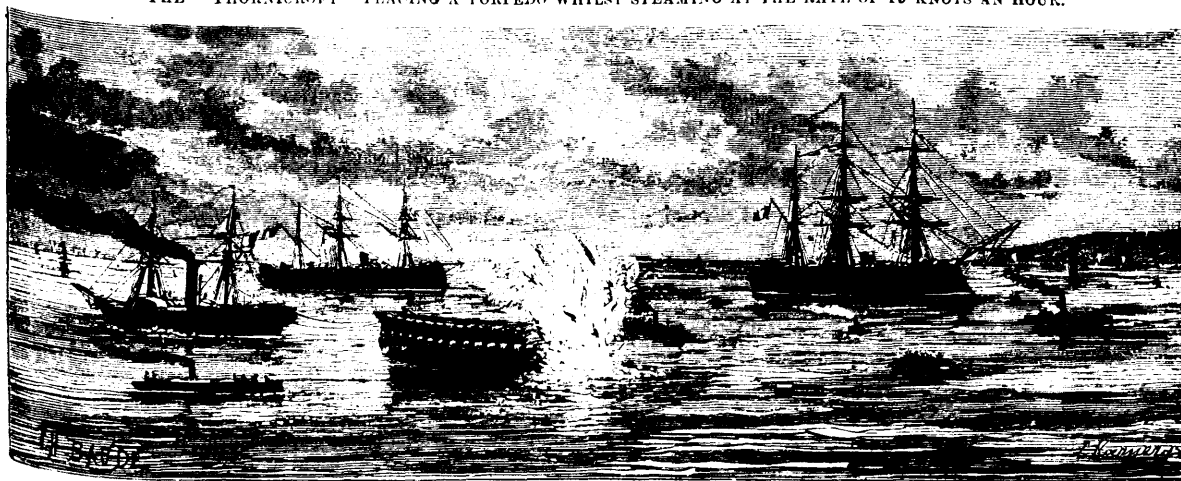


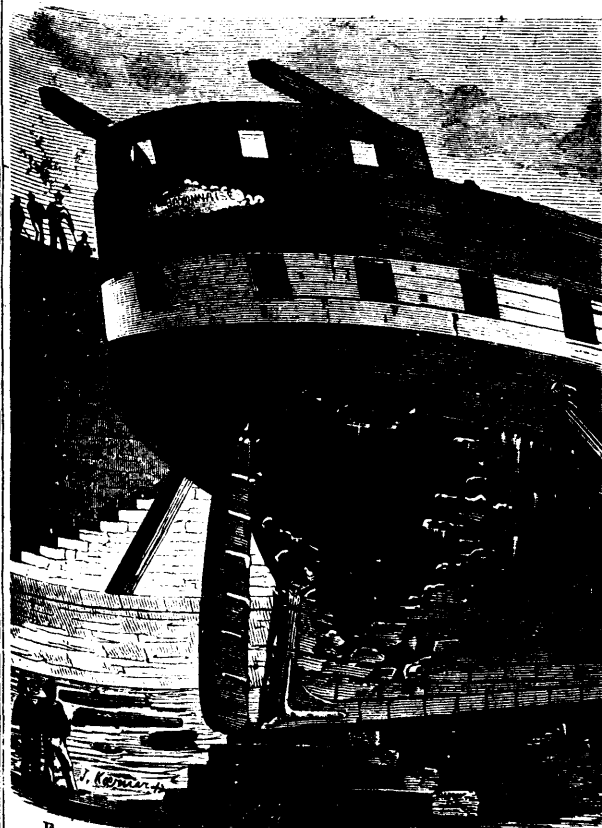
EXPERIMENTS WITH TORPEDOES MADE AT CHERBOURG.



THE "THORNICROFT" PLACING A TORPEDO WHILST STEAMING AT THE RATE OF 19 KNOTS AN HOUR.



A VESSEL CARRYING A TORPEDO ATTACKING THE "BAYONNAISE" BY MEANS OF A TORPEDO TOWED AFTER HER.



EFFECT PRODUCED ON THE STERN OF THE "BAYONNAISE" BY THE EXPLOSION OF A TORPEDO.

PINFOLD'S BRICK-MAKING MACHINERY.

(See page 104.)

It may at first sight be thought that brick manufacture is one of the most simple and easy matters for successful mechanical manipulation. But, in fact, it is very far from being so simple a matter, and we can well recollect that after the first mechanical essays it was decided by builders and users of bricks that the quality of machine-made bricks was so inferior as to practically keep machines out of the market; since then, however, they have once more come successfully to the front for brick manufacture. Opinions, nevertheless, still are very diverse on what might appear so simple a matter, as to the relative advantages of the wet and dry systems of treating the clay from the very commencement of its manipulation. And there is much to be said on both sides.

We illustrate this week a very strong and well made combined crushing, pugging and brickmaking machine, made and patented by Mr. J. D. Pinfold, the well-known brick-making machinist of Rugby. From its combined title, it will be seen that this machine unites in one compact and simple construction a variety of methods of treatment of the clay usually done by two or more separate machines, and thus capable of dealing with the roughest and most intractable material from first to last.

Mr. Pinfold adopts the moderately plastic method of manufacture, thereby most nearly adhering to the original method of treatment under the hand system. He advances, with justice, many claims for advantage both over the dry processes and over other forms of plastic brick machines.

In the case of dry-working machines, one great disadvantage exists in the unliability and resistance to working offered by dry clay. This necessitates the expenditure of great power to drive the machine, and subjects it to great wear and tear and liability of breakage. Further, this class of machinery is totally unsuited to natural plastic clay, even in its dry state also as the dry clay could not possibly be worked in lumps, it must be reduced very small, or powdered, at considerable cost, and then