

CONNOR'S SCREW WRENCH.

That so simple an implement as the common screw wrench should be made the subject of a number of patents, is perhaps surprising; but whenever strength and facility of handling can be secured by an alteration, such alteration is an improvement and is worth patenting. The implement now under consideration appears to be a strong and well-made article. It is fully described below.

This improvement consists in forming with the hub or outer jaw of the wrench, and projecting at right angles from its inner face, a hollow cylindrical tube having a slot extending the whole length, in which slides and is guided the movable jaw.—The heel of the movable jaw is made in a tubular shape, and fits in the said cylinder.

In the engraving, A represents the outer jaw, and B the inner jaw. C is the handle; D the screw that moves the inner jaw. The shank of the screw, D, is rigidly secured to the handle, C. A screw thread is cut through the inner portion of the movable jaw, through which the screw, D, passes, and by which it is moved. The end of the screw passes through the outer jaw and is allowed to turn freely in position, so that the inner jaw is readily moved back and forth on the screw.

This invention was patented February 6, 1866, through the Scientific American Patent Agency by T. J. Hennessey, to whom it was assigned by J. C. Connor, the inventor, before the issue.

Further information may be obtained by addressing Mr. Hennessey, No. 81 Beaver street, New York.

Remarkable History of a Torpedo Boat.

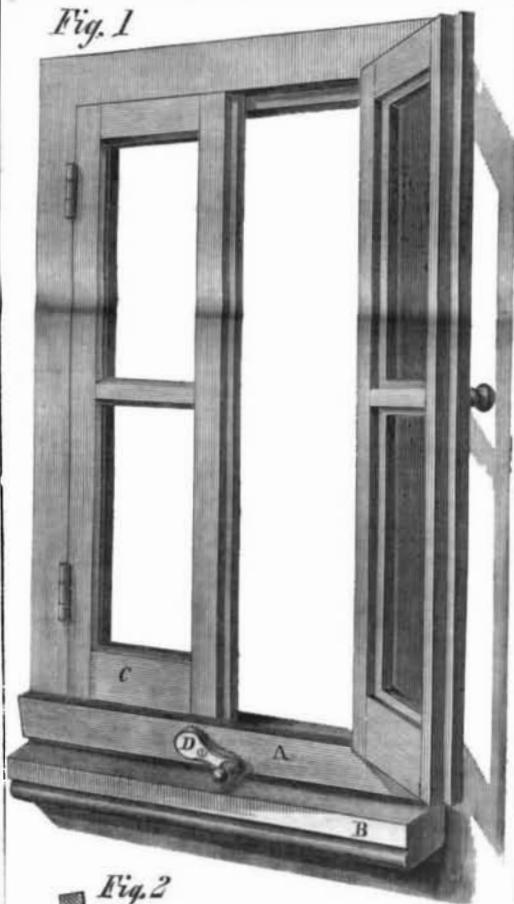
General Maury's report of the defence of Mobile narrates the eventful history of a torpedo boat as follows:—"It was built of boiler iron, was about 35 feet long, and was manned by a crew of nine men, eight of whom worked the propeller by hand. The ninth steered the boat and regulated her movements below the surface of the water. She could be submerged at pleasure to any desired depth, or could be propelled upon the surface. In smooth still water her movements were exactly controlled, and her speed was about four knots. It was intended that she should approach any vessel lying at anchor, pass under her keel, and drag a floating torpedo, which would explode on striking the side or bottom of the ship attacked. She could remain submerged more than half an hour without inconvenience to her crew. Soon after her arrival in Charleston, Lieut. Payne, of the Confederate navy, with eight others, volunteered to attack the Federal fleet with her. While preparing for their expedition the swell of a passing steamer caused the boat to sink suddenly, and all hands, except Lieut. Payne, who at the moment was standing in the open hatchway, perished. She was soon raised and again made ready for service. Lieut. Payne again volunteered to command her. While lying near Fort Sumter she capsized and again sunk in deep water, drowning all hands except her commander and two others. Being again raised and prepared for action, Mr. Aunley, one of the constructors, made an experimental cruise with



her in Cooper River. While submerged at great depth, from some unknown cause, she became unmanageable, and remained for many days at the bottom of the river with her crew of nine dead men. A fourth time was the boat raised, and Lieut. Dixon, of Mobile, of the 21st Volunteers, with eight others, went out of Charleston harbor in her, and attacked and sunk the Federal steamer *Housatonic*. Her mission at last accomplished, she disappeared forever with her crew. Nothing is known of their fate, but it is believed they went down with the enemy."

EVANS'S WEATHER STRIP.

This invention relates to an attachment which may be readily adjusted to the sills or lower portions of French window or door frames, so as to prevent wind or rain from passing under the sash or door, as shown in Fig. 1, in which A represents a strip rabbeted or grooved upon the under side, which is fitted to a tongue or projection upon the upper side of the sill, as shown in the transverse view, Fig. 2. At the outer edge of the strip is a rabbet or projection, extending up a suitable distance above the lower edge and outside of the sash, C. When it is desired to close the joint underneath the sash, the eccentric lever, D, is turned up, which brings the eccentric portion of the lever against the upper side of the sill, which raises the strip against the bottom of the sash and the rabbeted portion snugly against the inside of the sash, thus rendering the joint proof against wind and rain. These attached strips may be made of either wood or



metal, and when properly constructed, will be found of vast benefit to those who use the casement window.

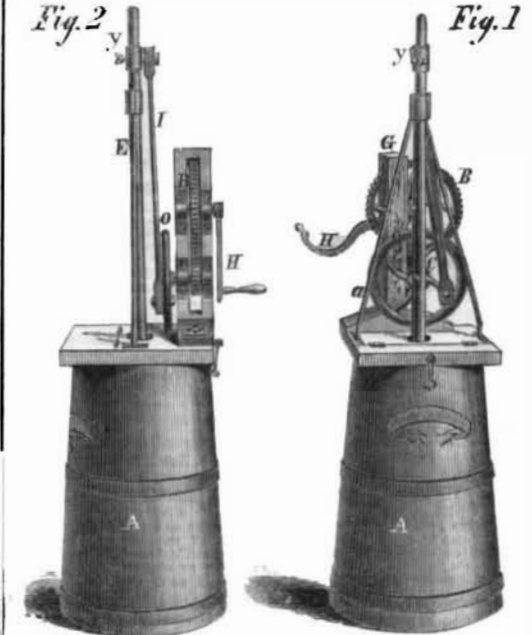
Rights for the sale and use of this invention may be obtained of Edmund C. Evans, Cabinet, Pa. It was patented March 13, 1866. [See advertisement in another column.]

RYERSON'S CHURN.

This invention consists in the combination and arrangement of gear wheels with the dasher of a churn and their supports.

In the accompanying engraving, Fig. 1 is an end elevation, and Fig. 2 a side elevation of the same. A represents the barrel of a churn, of common construction, upon the top of which is secured by

means of hooks and eyes, the cover to which the supporting frame, G, and inclined guides or braces, A A are attached. To this frame, G, are attached the spur or driving wheel, B, which meshes into a corresponding pinion, C, both of which run in suitable bearings. Upon the inner end of the shaft of the pinion, C, is a crank wheel, O, to which is attached the pitman, I, which is connected to the upper end of the dash handle, E. The pitman may be connected at any point of the dasher handle, E, and adjusted to any desired position by means of thimble or band and set screw, J. At the outer end of the shaft of the spur wheel, B, is a crank, H, by which the churn is operated.



It is claimed by the inventor that this churn is easy, rapid, and perfect in its operation.

The invention was patented Feb. 27, 1866. Further information may be obtained by addressing the inventor, Ira J. Ryerson, Box 30, Princeton, Ind.

THE whole army of Prussia has been placed in marching order, and the soldiers are chiefly supplied with breech-loaders on the needle principle. The Austrian army is supplied with excellent muzzle-loaders.



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