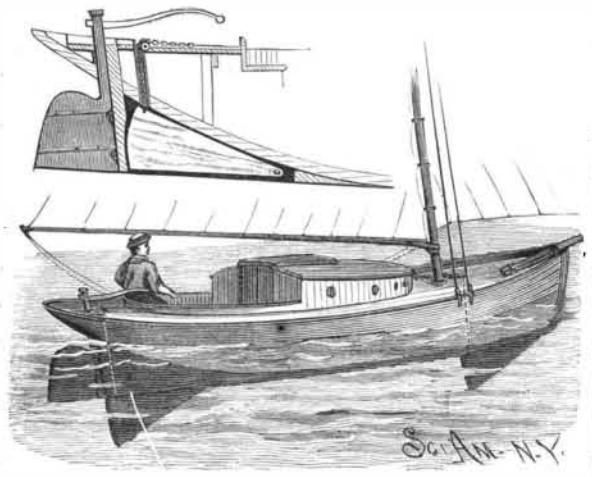
SKEG ATTACHMENT FOR VESSELS.

The skeg is a board of wood or metal of triangular shape, and is pivoted at its forward end in its casing, which is located entirely within the deadwood of therun of the boat. The board is lowered and raised by a rope or chain attached to its after end, and leading up through a pipe, over a sheave in the deck, close to the helmsman.

This attachment is particularly adapted to sail boats navigating shallow waters. By means of this attachment and the board forward, a vessel will fetch where she points in beating to windward in a sea way, since



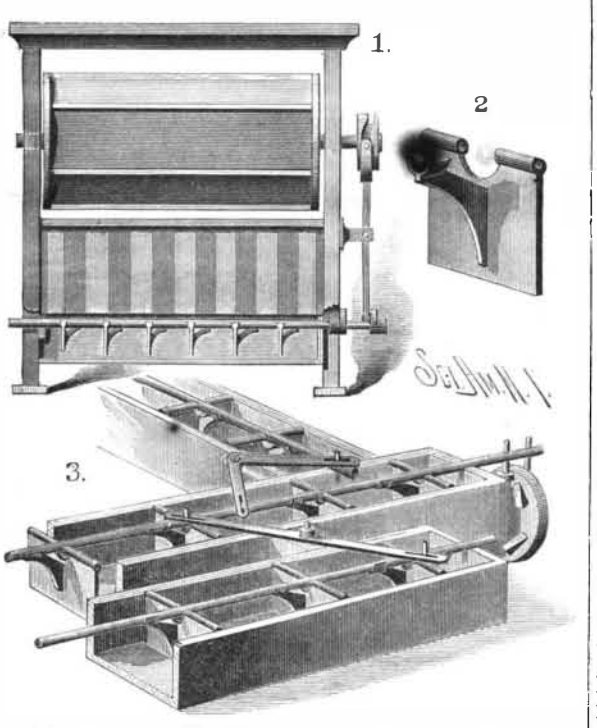
EDMONDSON'S SKEG ATTACHMENT FOR VESSELS.

she has a strong grip in the water both forward and aft, which prevents her from being knocked to leeward by every sea, as is the case with the ordinary centerboard boat. By raising the forward board, she wears around very quickly; and by raising the after (skeg) board, she will immediately shoot up into the wind. By an easy regulation of the two boards, she is made to carry any kind of helm desired, and the rudder is always in line with the keel, except in going about. This last advantage is obvious. The skeg board, being located entirely in the deadwood, takes up no room in the boat, cannot cause a leak, and does not detract from the strength of hull. The increased room thus obtained in the body of the boat makes this attachment particularly applicable to small sized boats.

This invention has been patented by Mr. T. G. Edmondson, of Tarpon Springs, Fla.

IMPROVED GRAIN CONVEYER.

Beneath the bolting chest is a hopper for carrying the product to the conveyer box. To the shaft of the bolt is keyed a cam of suitable diameter to effect one or more strokes of a lever at each revolution of the shaft. The lever is fulcrumed to an offset which may be adjusted to regulate the stroke. The conveyer shaft is held in bearings formed centrally in the ends of the conveyer box, and is given a recip-



HENDERSON & CONGER'S IMPROVED GRAIN CONVEYER.

rocating motion by the lower end of the lever, as shown in Fig 1, which shows the conveyer applied to the bolting chest. A series of flights are suspended from the shaft at equal distances apart. These flights are formed with a central recess in the top to receive the shaft, and their top edges are bent over to form hinges to receive a pin that passes through holes in the shaft. Attached to the back of each flight is a bracket, Fig. 2, provided upon its extended end with a U-shaped stop, which bears up against the shaft and holds the flight in a rigid vertical position during the forward movement of the shaft. As the shaft returns, the flights assume a slanting position toward the front end of the box, thus permitting their ready passage over the surplus product therein. As the shaft is again carried forward, the product within the box, coming in contact with the face of the flights, engages the stops upon their backs with the shaft, and they again assume a vertical position and carry the product before them. These hinged flights do not crush or grind the stock and, therefore, do not cause any dust. This conveyer occupies but a small space and requires but a small amount of power to operate it, while it may be driven from any point on the shaft where it is most convenient. One or more conveyers may be driven at an angle, or parallel with each other, or both, the power being applied to but one shaft. The arrangement of the levers by means of which one shaft communicates its motion to another, placed parallel with or at an angle to it, is clearly shown in the engraving, Fig. 3. The shaft may be reciprocated by a pulley provided on each side with wedge-shaped blocks which alternately engage pins projecting from the shaft, the pulley being turned by a suitably arranged belt.

This invention has been patented by Messrs. G. W. Henderson and J. C. Conger, of Columbia, Mo.

New York Groceries.

"That is not coffee," said the reporter.

"Who said it was?" replied the jolly, rosy cheeked grocer. "Are there any marks on it to indicate that it is coffee?"

"No, not particularly; but it certainly looks like coffee, and tastes entirely different."

"Ah, you have hit the nail on the head," continued the grocer, with a smile. "It would not do to let every one know it, as it might shake people's confidence in their grocery store. The bag, a few beans from which you have just tasted, contains an imitation of coffee. It is nothing more than flour, and poor flour at that, which has been shaped like the coffee bean and baked brown. If you will take a genuine coffee bean in your hand and put it alongside the imitation, you can see that there is a difference in the color. The shape is also different, but that is nothing, as the various kinds of coffee vary in shape and size. The flavor, of course, is not there, but the way the imitation is sold does not require its presence. The grocer is not a foolish man. He does not sell these flour beans for coffee. This would give the business away. But when trade is dull, and the grocer must have something to occupy his mind, it is a pleasant recreation for him to mix a quantity of the flour beans with the genuine coffee. Then it cannot be easily detected. Only just enough of the flavorless bean is used to make a little profit. This is not quite one-half. When the honest housewife who buys whole coffee so as to get it pure grinds up this mixture, and the odor steals out from the mill, her eyes snap, and she laughs at the people who are foolish enough to buy the coffee which is ground at the store, and can be easily adulterated. The taste of this compound is not unpleasant, and it will not injure any one. Even the baby can take it with impunity. If thecoffee were drunk plain its weakness would be noticeable, but being usually taken with milk and sugar, the fraud is not detected. Years ago all the coffee was ground in thegrocery, but adulteration was carried on so extensively that the practice was established of buying the whole bean. This led some inventive Yankee humanitarian, who believed that too much coffee is bad for the nerves, to bring out the flour bean.*

"Here is something else interesting. See these beautiful samples of cloves and peppers. Imported? Well, no, not exactly. They are home-made to suit the trade. They look good, but there is little flavor to them. Some one thought it was a shame to waste the beautiful and nourishing cocoanut shell, and conceived the idea of heating it and then grinding it to a fine powder. This, when artistically mixed with various kinds of oils, makes a good spice for pies and other good things. It is a growing industry, and well patronized. Some of this powdered shell, after being flavored and made into a stiff paste, is pressed through moulds into the shape of peppers and cloves. These, mixed with a quantity of the genuine article, give about all the flavor that it is safe for a person to take, and the grocer does not lose anything, but goes on paying his pew rent and building rows of houses the same as if there were a little cream in the cheese, a small quantity of sugar in the glucose, and a taint of butter in the oleomargarine."—*N. Y. Tribune.*

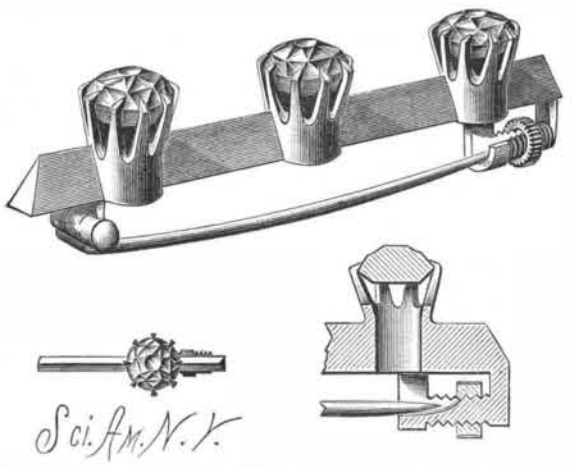
Diphtheria and Manure Heaps.

M. Ferraud, *Lyon Medical*, traces the relation between manure heaps and rural epidemics of diphtheria. On one occasion the disease appeared the day following a general street cleaning. He argues that manure should be kept in closed wells of stone, glazed with bitumen, so constructed that the fluids filter away from the solid matter.

*Notwithstanding frequent denials, the *American Analyst* positively states that it has seen these imitation coffee beans.

SAFETY FASTENING FOR LACE PINS, ETC.

This simple fastening, which may be applied to lace pins, brooches, and hair ornaments, is so constructed that the pin is not liable to become accidentally unfastened. The free end of the pin, which is hinged to the body in the usual way, enters a recess in the upper side of a socket attached to the body, as clearly shown in the engraving. The exterior of the socket is screw-threaded, to receive a milled nut. After the point of the pin has been placed in the socket, the nut is screwed toward the pin, so as to cover the recess, and thereby most effectually prevent the removal of the pin. The turning of the screw in the opposite direction uncovers



COOPER'S SAFETY FASTENING FOR LACE PINS, ETC.

the recess and allows the point of the pin to be removed.

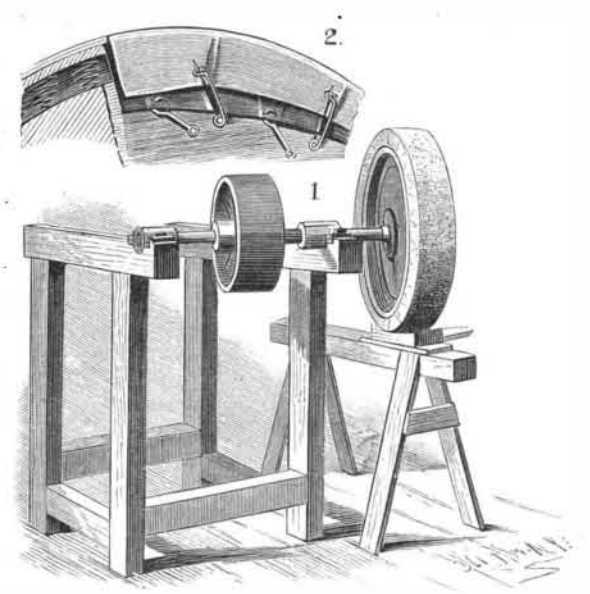
This invention has been patented by Mr. C. A. Cooper, of 5 Union Square, New York city.

Supplementary Rudders.

In narrow canals, where the depth of the water does not considerably exceed the depth of immersion of the vessel, it becomes a matter of difficulty to steer large ships, and damage has, in consequence, repeatedly resulted in the Suez Canal. To overcome this difficulty, it has been proposed to increase the surface area of rudders, and for this purpose Decerfz has introduced a supplementary rudder, which consists of an additional piece attached to the rear part of the rudder by means of iron hoops and bolts. The supplementary rudder is attached before the vessel enters the canal, and removed upon leaving the canal. The vessels of the Peninsular and Oriental Company have employed this supplementary rudder with considerable success.

SANDPAPERING AND POLISHING MACHINE.

The accompanying engraving illustrates a sandpapering and polishing machine, which is the invention of Mr. T. B. Marshall, of Sidney, Ohio. With this machine either a flat, oval, or concave surface can be sandpapered and polished with the grain of the wood. To the peripheral face of the wheel, which is of any suitable size, say 24 inches, are secured springs shaped as shown in Fig. 2, and placed as close together as possible. A band of felt is placed about the springs and held in position by a strip of sacking or canvas, the



MARSHALL'S SANDPAPERING AND POLISHING MACHINE.

edges of which are corded. This strip is held in place and prevented from creeping by hooks secured to the side of the wheel by nails. The sandpaper is applied so as to rest smoothly upon the peripheral surface of the wheel, the edges being bent over and crimped and secured to the sacking by safety pins. The wheel is mounted upon a shaft driven in any convenient way. The work to be smoothed and polished is pressed against the surface of the rapidly revolving wheel. This machine has been practically tested, and has given most satisfactory results.