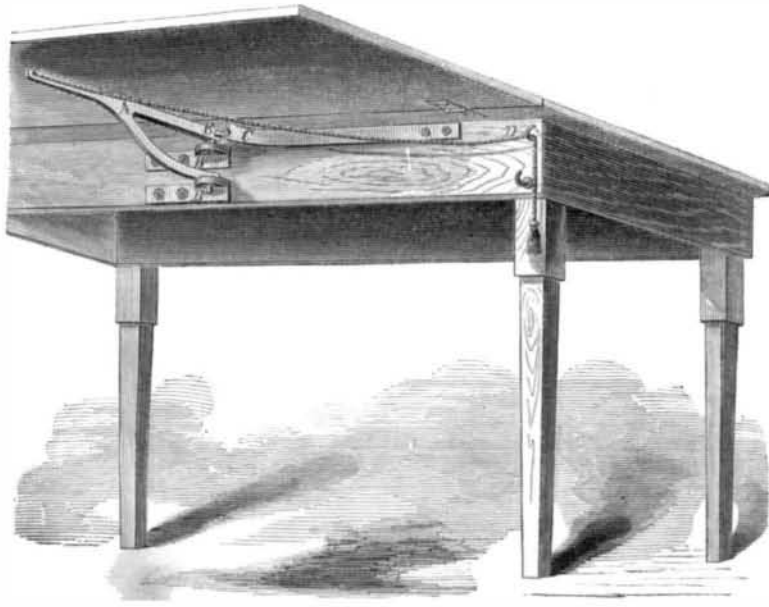


Improved Table-leaf Supporter.

The engraving of this improved table-leaf supporter represents the device so plainly that but little explanation is necessary. It is designed to obviate the necessity for the stooping and lifting required in spreading heavy table leaves. The support, A, is of metal, swiveled to the table by the pivot pieces, B, and held in position by the spring, C. When the leaf is to be lowered, the cord, D, is pulled, and the spring is depressed by the lug, E, allowing the support to shut against the table frame. The simple raising of the leaf to a horizontal position allows the support to spring out without the intervention of the hand.

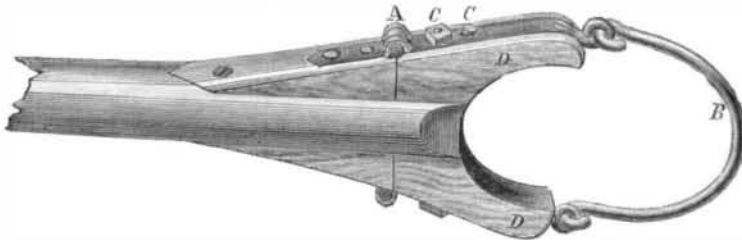


CAVENDER'S TABLE-LEAF SUPPORTER.

Patented through the Scientific American Patent Agency July 3, 1866, by L. R. Cavender, Eureka, Woodford county, Ill., to whom apply for rights to vend and manufacture.

Improved Boom and Gaff.

The object of the improvement here illustrated is to allow a worn jaw of a boom or gaff, to be conveniently removed and replaced by another, without injuring or removing any other portion. The jaws are bolted to the boom in the usual way, but at A, the straps terminate in hinges to allow of the removal of either jaw. The hoop, B, hooks into eyes at the ends of the straps. By driving out the bolts, C, the jaws, D, may be taken off and new pieces fitted. The advantages of this device will be seen by practical navigators and seamen.



MANNING'S BOOM AND GAFF.

It was patented May 1, 1866, by Alfred Manning, Fair Haven, Conn., to whom all letters on the subject should be addressed.

Gas Odors.

A director of a gas company recently wrote to the London Times that the excessive impurity of London gas has a beneficial effect in keeping away the cholera, and that none of the workmen in the metropolitan gas works have ever died of that disease, although their duties expose them to great alternations of heat and cold, and they are notably intemperate. The director, however, is directly contradicted by two different writers. Mr. Simcox Lea, incumbent of one of the churches at Bow, declares that no class of men in his neighborhood have suffered so heavily from the cholera as the class employed in the gas works, and the engineer of the Commercial Gas Company says that his company lost five workmen in the first seven days of the present attack.

If the director of the gas company is correct, it might be said "that the remedy is worse than the disease." It may be, however, that the gases which the workmen at a gas-making establishment are compelled to inhale will have some effect in keeping away the causes of cholera; but it is a statement that requires corroboration. As yet there have been no circumstances of position or employment that have proved specifics against the cholera.

Pressed and Cast Bullets.

Machines have been made, and, we believe, are still in use, to press leaden bullets; but we have

been told by those who have had much experience with fire-arms that the pressed balls are unreliable. The complaint is that the lead being closely compressed is heavier than a bullet which is run in a mold, and also that in time the pressed bullet expands until the metal regains its natural porosity,

and thus becomes too large for the bore of the rifle. Whether these objections have any better foundation than whim or prejudice, or not, it is certain that some large establishments make only cast bullets. This is the case at Colt's pistol factory and Sharps's rifle works. The bullets are cast in metallic molds with lead at a high heat. Each bullet, when cold, is tested by an expert and all the light ones

rejected. This is not determined by weighing, but simply by handling the balls, long experience enabling the workman to detect at once those which contain blow holes.

Test for Acids.

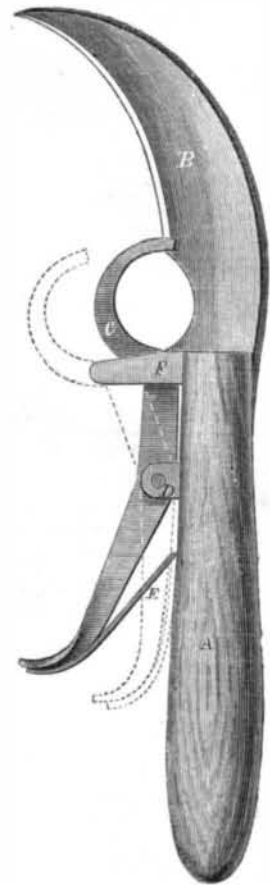
An exceedingly sensitive test for ascertaining the presence of acids has been suggested by Schönbein; this is simple cyanine blue, easily produced by the action of iodide of amylo on lepidine subsequently treated with soda. One part of the cyanine dissolved in one hundred parts of alcohol is further diluted with twice its volume of water. The merest trace of an acid is promptly shown. Distilled water simply blown upon shows by this test the presence of carbonic acid from the lungs. The solubility of oxide of lead, which is so slight as to be unrecognized by sulphureted hydrogen, is clearly discovered by this test. By carefully adding acid to the solution till the blue color is destroyed, a very delicate test for the presence of bases may be procured.

CONARROE'S CANE KNIFE AND STRIPPER.

In crushing sorghum and other canes for the extraction of the saccharine matter, if the cane is not properly stripped, the leaves absorb the juices, and thus a portion of them is wasted. The improvement illustrated in this engraving is a device for combining a cutter and stripper for the cane.

A, is the handle and B the blade of the knife, which latter is hollowed, so that in connection with the jaw, C, the cane can be closely grasped. This jaw is pivoted at D, and held in place by the spring, E,

the end of the jaw being notched to receive the edge of the blade, B. Two guides, F, assist to retain the jaw in position.



The operation, after topping the cane, is to open the jaw by the thumb, then, as the thumb is removed, the jaw and blade grasp the cane and a downward motion of the hand strips it of its leaves, and the stalk is cut by drawing the knife toward the operator. The value of the device is seen at a glance.

Patented through the Scientific American Patent Agency July 3, 1866, by Robert Conarroe. For State and county rights address R. Conarroe & Co., Camden, Preble county, Ohio.



INVENTORS, MANUFACTURERS.

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