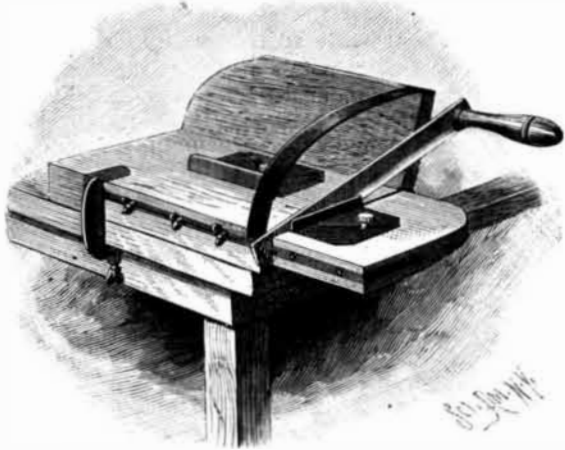


**STONE'S BREAD CUTTER OR SLICING MACHINE.**

The accompanying illustration represents a device of simple construction designed to be an effective bread cutter, with a rotary stroke, and also a cutter and slicer for meats, vegetables, etc. It is the invention of Mr. D. G. Stone, of Negaunee, Mich. The body of the

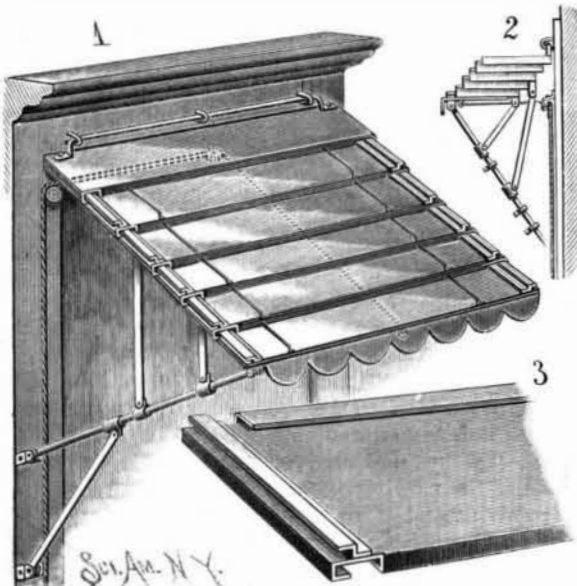


STONE'S BREAD CUTTER OR SLICING MACHINE.

device consists of a horizontal table, with a back connected from its top to one end of the base by a curved guide bar, against which the cutting blade is operated, and arranged in connection with this base, in the same plane, is an auxiliary table, adjustably attached to the main table by a rod or bar and thumb screws. The auxiliary table is held a sufficient distance away from the main table to permit the free movement of the knife between the two sections, the knife being journaled on the rod or bar connecting the two parts, to be capable of rotary motion. On the extended portion of the table supported by the connecting rod is a gauge for regulating the thickness of the slices to be cut, and there is also a gauge on the main table for use when small articles are to be sliced, to bring the work near the axis of the blade. The whole device is attached to the kitchen table or other support by means of a clamp. This device lends itself readily to a rocking stroke or motion of the knife, rendering unnecessary the complete revolution of the blade unless such motion is deemed most desirable in the work being done. For further information relative to this invention address the inventor as above.

**AN IMPROVED METAL AWNING.**

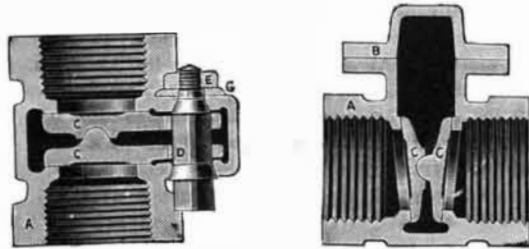
The awning represented in the illustration is designed to be constructed at a moderate cost, and to provide for the firm support of the several awning sections. It has been patented by Messrs. T. W. & B. T. Wood, of Berlin, Wis. Fig. 2 is a side view of the awning when folded, Fig. 3 showing the end of one of the sections, and Fig. 1 representing the awning in extended position. The upper awning section is provided with a rod or bar, to be secured to the window or door frame by staples, and all the sections have end flanges, so that they will readily interlock with each other. To steady and partly guide the sections, each of the lower sections has rods which pass through apertures in the downwardly extending sections of the flanges of the section above. To each side of the window or door frame is hinged a rod pivotally connected to the lower awning section, and on this rod is a sleeve, to which is pivotally connected a brace, hinged lower down on the frame. The main body of the awning is supported by intermediate braces pivotally connected to sleeves on the main side rods, in connection with suitable stops. The awning is raised and lowered by a rope or cord attached centrally to the lower side of the lower section, and leading thence to sheaves at the top and side, where it is extended downward to within reach of the operator.



WOODS' METAL AWNING.

**A NEW STRAIGHTWAY VALVE.**

The accompanying illustrations show a new form of straightway valve for steam, water, gas, oils, etc., now being placed upon the market by the Lunkenheimer Brass Manufacturing Company, of Cincinnati, Ohio. In size it is smaller than the ordinary globe valve, the first figure showing the full size of a  $\frac{3}{4}$  in. valve. The two disks, C C, are independently and loosely secured to the operating stem, D, and are adapted to close against tapering seats in the valve shell, and being provided with ball and socket bearings at their backs, are evenly wedged against their corresponding seats when the valve is closed by the lever. The stem, D, is operated by a lever and turns in tapering ground joint bearings, being held in place by a nut, E, which is guarded against displacement by a "D" or square washer, G, on the same principle as used in the ordinary steam stop cock. Any desired friction can be brought to bear on this stem by means of the nut, thus securing a steam-tight joint and dispensing with the usual stuffing box. This frictional bearing also prevents displacement of the valve disks and lever, so that the valve will remain at any desired opening. The lever fits a square on end of stem and is detachable. The valve is easily taken apart when necessary by unscrewing nut, E, and upon removal of washer, G, stem, D, and cap, B, the disks can be withdrawn from the valve shell. These valves are at present being made in sizes in brass from  $\frac{1}{2}$  in. to 3 in., and in iron from 2 in. to 6 in. inclusive, screwed ends. The best steam metals are used in their manufacture, and they are designed to be used in place of gate valves, stop cocks, or globe valves, and especially for fluids in oil works, refineries, etc. Sizes larger than 4 in. are not so well suited for steam above eighty pounds pressure.



A NEW STRAIGHTWAY VALVE.

When placed near the ceiling they can be operated by a rod or rope. This new valve has been named the "Handy" valve.

**New Inventions.**

Inventors of this or that device which is intended to overthrow all existing plans and systems often feel that the public do not appreciate their efforts, and leave their invention untried out of sheer pique, indifference to new things, or conservative ideas which can see no good in anything new. So far as this relates to public travel or to large interests, it is a mistaken one on the part of inventors. Capital is always anxious to save even a small percentage of loss, and if a new machine or process actually accomplishes what it claims to, it is quickly adopted, but too often the claims made do not exist in fact, but only in the imagination of the inventor, and where this is the case the public find it out quickly. Not many years ago it was discovered that the system for using steam in marine engines was radically wrong, and that greater economy could be had by certain other systems. When the fact was established, no other kind of engines than the new were built, and ships which were worth it had their old engines torn out and thrown away, to be replaced by the new system. There was no hesitation whatever; it was simply the logic of facts. Sometimes the inventor is a pioneer, and makes discoveries which the world is not ready for, but if he is right in his principles, and has not discovered a new philosophy of mechanics to fit his machine, he will certainly attain the end he seeks. — *The Engineer.*

**AN IMPROVED FODDER FORK.**

The illustration represents a simple and convenient implement whereby corn fodder or grain in sheaves, etc., may be gripped and lifted upon a wagon, and readily released at the will of the operator. It has been patented by Mr. Charles L. Rudiger, of Ridgeway, Kansas. The implement has a single tine or fork bow, in connection with a metallic keeper bar having a ring eye and oppositely extending limbs. On one limb are ears pivotally secured to the ear of a ring traveler that slides on the handle, and both limbs are slightly elastic, the limbs being so bent from their

hinge point that one of them extends toward the free end of the fork bow, and can be adjusted to clamp a sheaf or bundle of fodder within the bow of the fork.



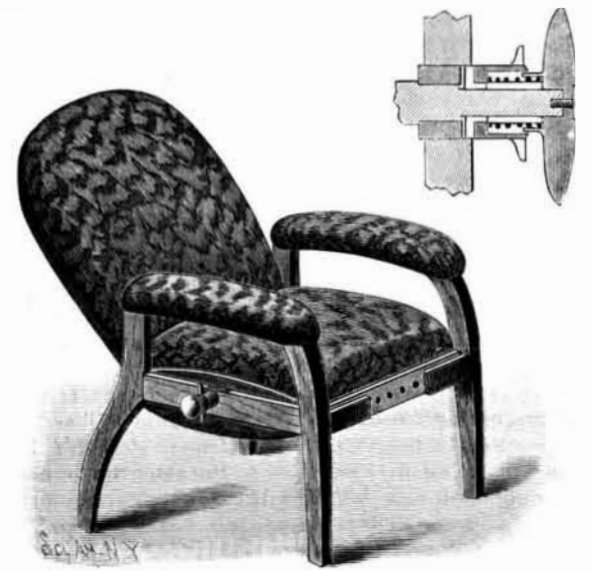
RUDIGER'S FODDER FORK.

Upon the handle is a sliding sleeve having two parallel lugs, between which the lower end of the other keeper-bar limb may be located when the sleeve is slid upwardly and suitably adjusted. Preferably there is a longitudinal slot in the sleeve, through which a guide pin is inserted in the handle to limit the travel of the sleeve and retain the lugs in proper alignment with the end of the keeper bar. The sleeve also has a handle to facilitate moving it to the proper position. The keeper bar by its elastic pressure holds the ring traveler frictionally engaged with the handle, and this, with the contact of the lower end of the keeper bar between the lugs, prevents slipping of the bar until it is designedly released.

**AN IMPROVED REVERSIBLE SEAT FOR CHAIRS.**

The illustration represents an improvement especially designed for application in the construction of barbers' chairs, the small figure being a sectional view through one portion of the chair frame and the actuating axle of the seat frame. The side pieces of the seat frame are bored to receive a rectangular hollow offset integral with one face of a plate through which is passed an axle, the extremities of which are cylindrical, and each provided with a longitudinal groove. The knob on the outer end of the axle has on its inner face a hub of greater diameter than the axle, and the cylindrical sections of the axle at their junction with the rectangular portion are journaled in bearings in each side piece of the chair frame. Over each cylindrical section of the axle slides a sleeve having on its inner end an interior flange and feathers, and with wings on its outer surface, as shown in the small figure, the inner ends of the feathers entering the longitudinal axle grooves and their outer ends entering slots in the bearings. Around the axle, within the sleeve and the hub of the knob, is a coiled spring, bearing at one end against the knob and at the other end against the flange of the sleeve. The seat is similarly upholstered on both sides, and is reversed by pushing the sleeve with one hand outward toward the knob, against the tension of the spring, thereby disengaging the feathers of the sleeve from the recesses in the bearings, and turning the knob with the other hand, the axle being then free to revolve a half turn. On releasing the sleeve, the spring forces it inward and causes its feathers to lock into the recesses of the bearings, when the seat has been completely reversed. A series of ventilating tubes is also provided within the seat frame, whereby the upholstering material of the seat will always be open to the access of air from the outside.

This invention has been patented by Mr. Joseph B. Popenhagen, of No. 85 Loomis Street, Chicago, Ill.



POPENHAGEN'S REVERSIBLE SEAT FOR CHAIRS.