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E. BRUNO

1,806,887

ADJUSTABLE HOLDING DEVICE

Filed Sept. 9, 1930

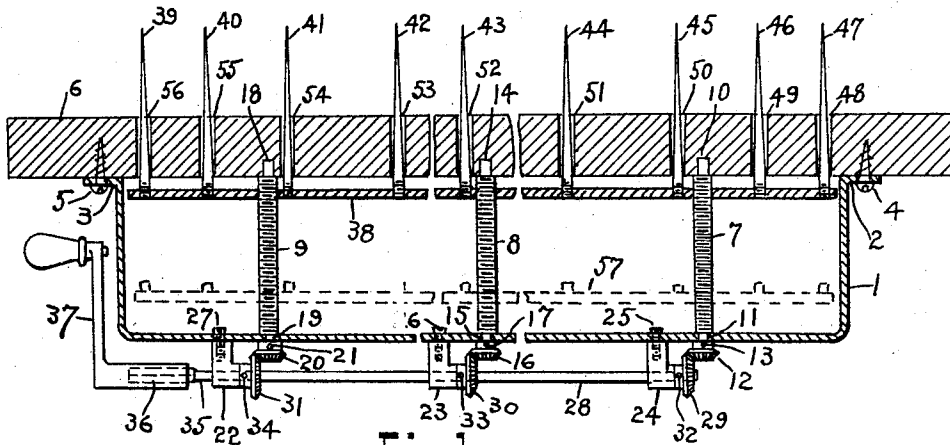


Fig. 1.

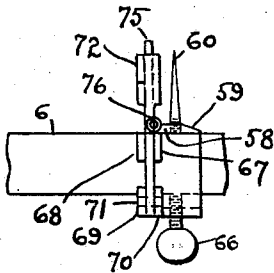


Fig. 2.

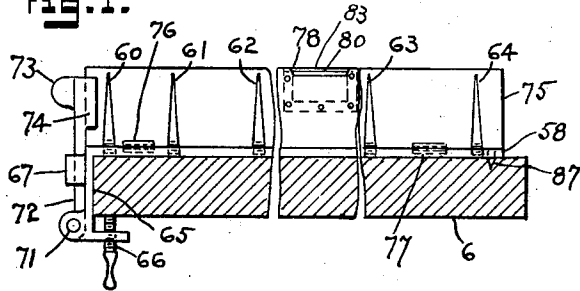


Fig. 3.

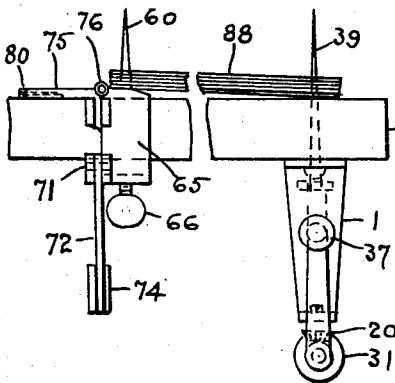


Fig. 4.

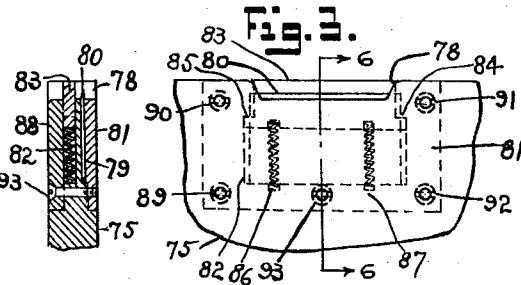


Fig. 5.

Fig. 5.

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ADJUSTABLE HOLDING DEVICE

Application filed September 9, 1930. Serial No. 480,799.

My invention relates to holding devices and refers more particularly to an adjustable holding device adapted to hold the ends of a piece of goods such as silk, cotton, etc., while predetermine lengths of the goods are cut off the bolt.

One object of my invention is to provide a simple, effective and inexpensive means for holding the ends of a piece of goods.

10 Another object of my invention is to provide a device fixed to the underside of a table for holding one end of a piece of goods, said device provided with a plate carrying a multiple of pins and means adapted to vertically move said pins and plate so that the ends of the said pins, arranged to pass through suitable holes in said table, may be positioned to project different distances above the plane of said table.

20 Another object of my invention is to provide a device for holding one end of a piece of goods that is adapted to be detachably held to said table.

25 A still further object of my invention is to provide a device adapted to be utilized on the top of a table having one end terminating in a hook shaped form with a set screw therein for holding the device to the table and a pin adjacent the other end, said device provided with a multiple of vertically projecting pins and a hinged pin guard provided with means for holding the same in spaced relation and vertically parallel to the said pins, the central portion of said pin guard provided with a suitably shaped indentation detachably holding a cutting edge.

35 I attain these objects preferably by the means illustrated in the accompanying drawings, wherein similar numerals refer to like parts throughout the several views, in which:—

Figure 1 is a partial section of the fixed holding element.

45 Figure 2 is an end elevation of the movable holding element.

Figure 3 is a side elevation of Figure 2.

50 Figure 4 is a side elevation of the fixed and movable holding elements, illustrating the position of the goods in the element and the

positions of the hinged pin guard and the guard lock.

Figure 5 is a partial enlarged elevation of the hinged pin guard plate, illustrating the cutting edge.

Figure 6 is a section taken on lines 6—6 of Figure 5, illustrating the cutting spring guard.

The fixed holding portion of the device is comprised of a U shaped member 1, provided with right angled bends 2 and 3, having screw holes therein for the holding screws 4 and 5 adapted to firmly hold the member 1 to the table 6.

This member 1 rotatably carries three or more screws 7, 8 and 9, the screw 7 provided with an extension stem 10 on one end adapted to be rotatably held in a suitable pocket or bearing in the table 6 and having an extended stem on the other end at 11 adapted to be rotatably held by the member 1, this end extended far enough to hold a gear 12 by means of the pin 13.

The screw 8 is provided with an extension stem 14 on one end adapted to be rotatably held in a suitable pocket or bearing in the table 6 and on the other end there is an extended stem 15 adapted to be rotatably held by the member 1, this end extended far enough to hold a gear 16 by means of the pin 17.

The screw 9 is provided with an extension stem 18 on one end adapted to be rotatably held in a suitable pocket or bearing in the table 6 and on the other end there is an extended stem 19 adapted to be rotatably held in the member 1, this end extended far enough to hold a gear 20 by means of the pin 21.

There are three bearings 22, 23 and 24 fixed to this element 1 by means of the screws 25, 26 and 27, said bearings carrying the shaft 28 to which is attached the gears 29, 30 and 31 by means of the pins 32, 33 and 34, said gears meshing with the gears 12, 16 and 20 respectively.

The shaft 28 is extended at 35 beyond the bearing 22 and this extension terminates in a square enlargement 36 adapted to detachably engage with a suitable opening in a handle 37.

The screws 7, 8 and 9 are threaded in the plate 38 into which are threaded the vertical pins 39 to 47 inclusive, so that any of the pins may be removed if desired, said pins adapted to pass through the holes 48 to 56 inclusive in the table 6, so that when the handle 37 is revolved, the plate 38 will be moved vertically up or down depending upon what direction the handle is being turned and the pins moved vertically into and out of the holes.

The dotted lines 57 illustrate the position of this plate 38 when the pins are wholly within the holes in the table 6.

The movable holding portion, of the device is comprised of a plate 58 tapered at 59, holding the pins 60 to 64 inclusive, which are screwed therein, so that any of the pins desired may be removed therefrom and this leg is extended in a hooked form at 65 to carry the thumb screw 66.

The hooked end 65 of the plate 58 is provided with four ears 67, 68, 69 and 70, the two ears 69 and 70 provided with a hole adapted to hold a pin 71, upon which is pivoted the locking arm 72, formed on its opposite end to provide a hand grip 73 and slotted end 74 that is adapted to engage with the plate 75, which is hinged at 76 and 77 to the plate 58 and it is obvious that this locking element 72 when positioned as shown in Figures 2 and 3 will firmly hold the plate 75 as shown and when the locking element 72 is positioned as shown in Figure 4, the plate 75 will naturally fall into the position shown in Figure 4.

This plate 75 has an indentation 78 at the approximate center thereof.

The plate 75 is cut away below this indentation so as to form a shouldered pocket 79, formed to contain a cutting edge 80, positioned so that the cutting edge will project beyond the bottom of the indentation 78, and to hold this cutting edge 80 positioned, the plate 81 is provided.

Opposite to the blade 80, there is another pocket 82, adapted to carry a sliding guard plate 83, with ears 84 and 85, that are adapted to engage with suitably formed shoulders of the pocket 82, and this plate is maintained positioned as shown in Figure 5 by means of the springs 86 and 87.

This guard plate 83 is held positioned by means of the plate 88, which is held positioned together with the plate 81, as clearly shown in Figures 5 and 6, by means of the screws 89, 90, 91, 92 and 93.

This movable element shown in Figures 2 to 6, inclusive, is held on one end to the table by means of the thumb screw 66, and adjacent the other end of the plate 58, there is a pin 87, positioned as shown in Figure 3, which functions to prevent this end of the plate from moving when the other end is clamped by means of the thumb nut 66.

When it is desired to cut one or more lengths of goods, the fixed element shown in Figure 1 may be used alone or in conjunction with the movable element.

When the fixed element is used alone, the handle 37 is turned and the needles or pins forced through the holes in the board until they reach the desired distance above the table top and the number of these pins used is dependent upon the width of the goods to be held and cut.

For instance, if the goods is 18" wide, it is obvious it will not require as many pins or needles as it would if the goods were 36" or 42" wide.

When the fixed and the moving elements of this invention are used, the pins or needles in the fixed element are raised a proper distance above the board and the moving element is placed at such a distance that it may be desired to cut the cloth or goods by means of the cutting edge 80, and then one end of the goods is forced over the pins and the fixed element about $\frac{1}{4}$ " away from the edge of the goods, and the goods rolled down upon the table and the goods grasped and cut at the center by means of the knife or cutting element 80, whereupon the goods are torn straight across and this end of the goods is pressed down upon the needles of the fixed element after the locking arm 72 has been dropped down, so as to allow the plate 75 to fall as shown in Figure 4 and the position of the goods is shown by 88.

After this end of the goods has been cut and placed upon the pins and the movable element, the plate 75 is positioned as shown in Figures 2 and 3, so that the goods may be drawn over the top of the plate without danger of being injured by the needles which are held in the plate 58.

It is obvious that in using the device illustrated in Figures 5 and 6 for cutting the goods, that the guard 83 will be flush with the top of the element 75, so that the goods may be pulled over the top of the element, without danger of touching the cutting edge 80, and when it is desired to use the cutting edge, this guard 83 is pressed down until the cutting edge comes in contact with the goods, and when the goods is released, the guard will spring back into the normal position and prevent any further danger of injury either to a person's fingers or to the goods.

Having thus illustrated and described the preferred embodiment of my invention, I do not wish to limit myself to the exact construction or arrangement of parts shown, since it is evident that modifications may be made therein, without departing from the spirit of the invention or scope of the claims.

I claim:—

1. In a holding device, a framework attachable to a table, carrying a multiple of screws journaled in said table and framework and

rotatably engaging with a plate holding a multiple of pointed pins and means for rotating said screws simultaneously.

2. In a holding device for materials, a U shaped framework with feet having screw holes, attachable to a table with a multiple of holes therein, said framework rotatably carrying a multiple of screws with their ends journaled in the table and said framework, each screw carrying a gear meshing with a gear attached to a shaft supported in suitable bearings fixed to said framework, said screws rotatably engaging with a plate carrying a multiple of pointed pins screwed therein, adapted to be moved into and out of the holes in the table by rotating said shaft and a detachable handle for rotating the said shaft.

3. In a holding device for materials, a U shaped framework attachable to a table with a multiple of holes therein, said framework carrying a multiple of screws, each screw carrying a gear meshing with a gear attached to a shaft suitably supported in bearings fixed to said framework and table, said screws rotatably engaging with a plate carrying a multiple of pointed pins adapted to be moved into and out of the holes in the table by operating a handle attached to said shaft.

Signed at New York, county of New York,
State of New York, this 20 day of August,
1930.

ERNEST BRUNO.

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