Dec. 1, 1931. R. M. SMITH 1,834,430

STOP DEVICE FOR SEWING MACHINES

Filed Sept. 12, 1928

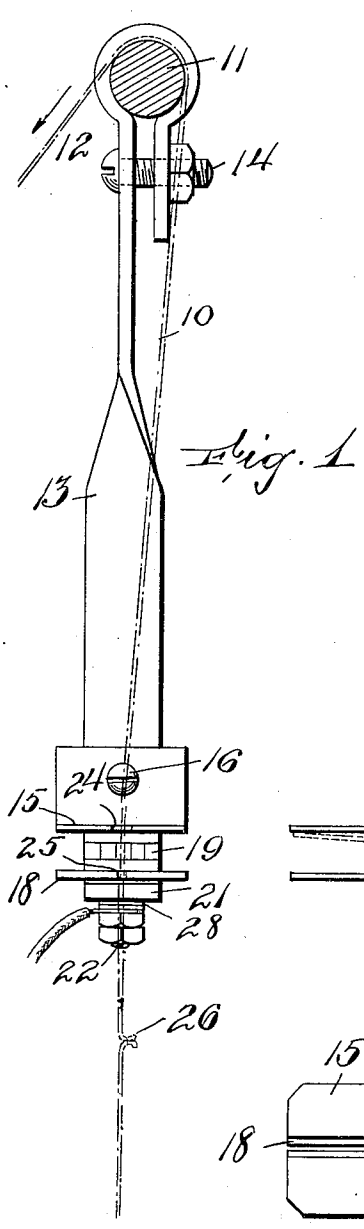



Fig. 1

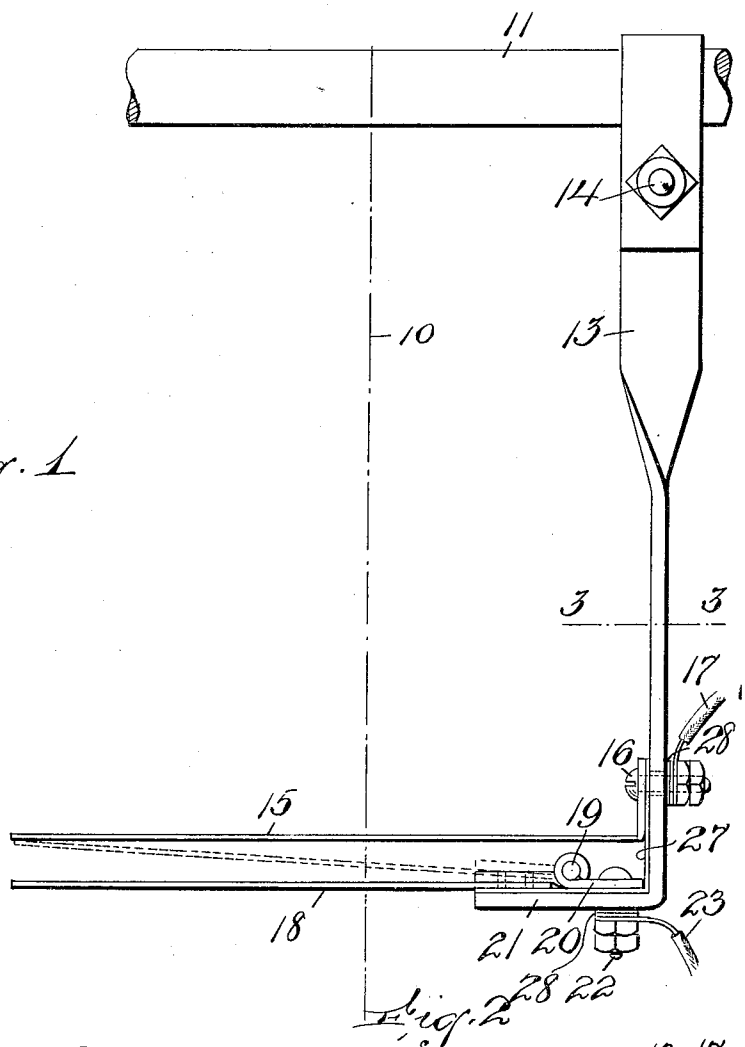



Fig. 2

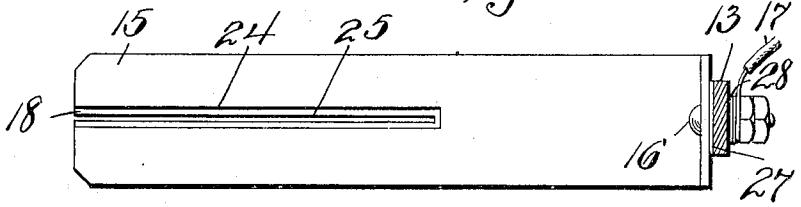



Fig. 3

INVENTOR
Ricardo M Smith,
BY
Wm H Canfield
ATTORNEY

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# UNITED STATES PATENT OFFICE

RICARDO M. SMITH, OF PASSAIC, NEW JERSEY, ASSIGNOR TO I. C. HERMAN & COMPANY, INC., A CORPORATION OF NEW JERSEY

## STOP-DEVICE FOR SEWING MACHINES

Application filed September 12, 1928. Serial No. 305,347.

This invention relates to an improved stop-device for use on machines, particularly sewing machines which sew or hemstitch the edges of long lengths of goods which are made up of pieces joined end to end by seams. Such machines are exemplified by the machines used in handkerchief making and when such means are engaged by the presser foot and the needle, if the seam is too bulky it does considerable damage before the machine can be stopped. Such machines are arranged in rows with a single attendant for many machines and the machines are replenished as to goods and thread by the attendant. The machines at present stop automatically when the supply of goods or thread is exhausted and such stop devices are not new and one is used in connection with the present invention. The stop-devices are electrical connections for disconnecting the power supplied to the machine so that the machine stops when the clutch or disconnecting device is energized.

The present invention is arranged so that the goods passes through it on the way to the needle and a thickened part on the goods, such as a seam or other obstruction too large to pass through the hemmer or under the presser foot or through a similar device engages this device, the seam or enlargement moves the movable terminal of the stop circuit against the fixed terminal of this circuit and the clutch on the machine is energized to stop the machine. Anyone skilled in the art will readily understand the operation and installation of this fixture.

The invention is exemplified in the accompanying drawings in which Figure 1 is a side view of a stop device made according to my invention. Figure 2 is a side view of the device and Figure 3 is a section on line 3—3 in Figure 2.

The path of the goods is shown in dotted lines at 10, as passing over the bar 11 and the goods descends at 12 to the sewing machine.

The device comprises a bracket 13 clamped by the screw 14 around the bar 11. The strip 15 is fixed in position although it has a slight spring to it and forms a terminal as it is connected by a screw 16 to the wire 17 of the electric circuits. The movable strip 18 is shown hinged at 19 to the strip 20 which is secured to the bottom step or extension 21 of the bracket 13. The screw 22 serves as a binding post for the other wire 23 of electric circuit.

The fixed terminal 15 has a slit 24 through which the edge of the goods passes and the strip 18 has a slit 25 which is slightly wider than the thickness of the goods and the edge of the goods passes through this slit also and before it reaches the slit 24. The strip 18 is on the side of the strip 15 from which the goods approaches the machine and when a thickened part, as the seam 26, engages the edges of the slit 25 it carries the strip or terminal 18 and swings it against the strip 15 as shown in dotted lines in Figure 2 and completes the electrical circuit to stop the machine.

If the stopping device does not act instantly the goods is not ripped and the device is saved from excess strain by the slight resiliency or give of the strip 15.

The terminals are insulated electrically from each other and from the bracket 13 by suitable insulation as the strip 27 and the washers 28 or other construction readily understood by those skilled in the art.

Slight modifications can be made in the construction of the device without departing from the scope of the invention.

I claim:—

1. A stop-operating device for a sewing machine comprising a fixed contact through which the edge of cloth can pass and a pivoted contact under the fixed contact and having a slot to receive the cloth, the slot being narrow to prevent the passage of a seam by which a seam will move the pivoted contact upwardly to engage the fixed contact.

2. A stop-operating device for a machine comprising a slightly resilient slitted fixed terminal and a movable slitted terminal, the slits receiving the edge of goods being fed to the machine, the movable terminal being engaged first and moved into contact with the fixed terminal by a seam in the goods engaging the slit edges of the slit.

3. A stop-operating device comprising a

bracket having a horizontally projecting metal strip with a slit therein for the passage of cloth, a strip pivoted under to the first strip and with a slit therein to permit the passage of the cloth and to prevent the passage of seams, and electrical connections on the two strips.

In testimony whereof I affix my signature.

RICARDO M. SMITH.