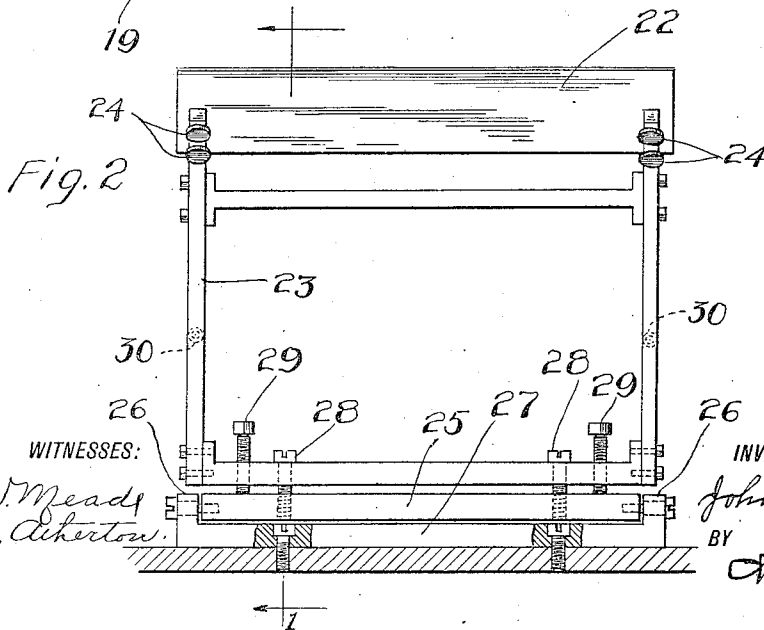
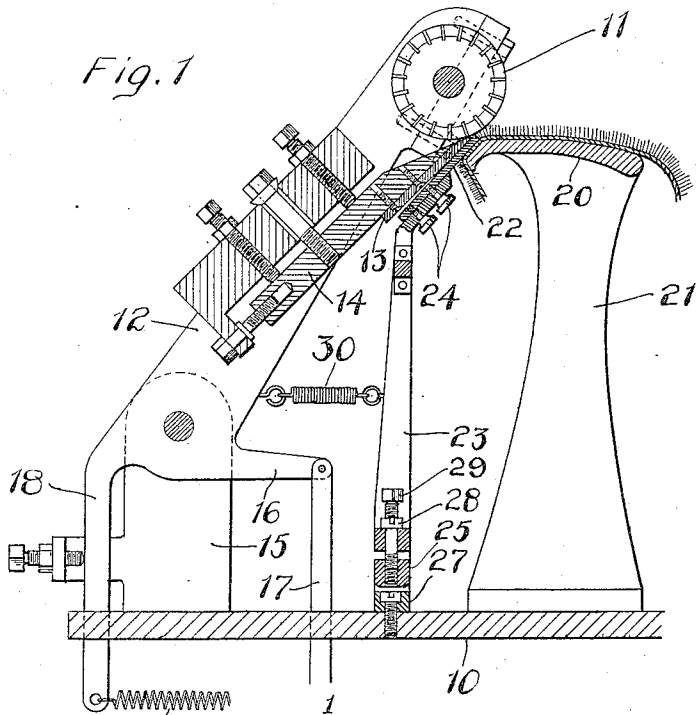


J. H. STARR.
ATTACHMENT FOR PRODUCING A POSITIVE LENGTH OF NAP.
APPLICATION FILED MAR. 20, 1912.

1,052,855.

Patented Feb. 11, 1913.



UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR PRODUCING A POSITIVE LENGTH OF NAP.

1,052,855.

Specification of Letters Patent.

Patented Feb. 11, 1913.

Application filed March 20, 1912. Serial No. 685,134.

To all whom it may concern:

Be it known that I, JOHN H. STARR, a citizen of the United States, residing at Danbury, county of Fairfield, State of Connecticut, have invented an Improvement in Attachments for Producing a Positive Length of Nap, of which the following is a specification.

This invention has for its object to provide an attachment for clipping machines adapted for general use and especially adapted for machines for clipping velour hat bodies, so called, which will permit the bodies to be readily inserted and removed and will clip the nap to a positive and uniform length without regard to the thickness of the body and will prevent injury to the bodies should there be thickened portions or should a body become folded or wrinkled.

With these and other objects in view, I have devised the novel nap regulating attachment which I will now describe, referring to the accompanying drawing forming a part of this specification and using reference characters to indicate the several parts.

Figure 1 is a vertical section of a clipping machine with my novel attachment in place thereon showing its construction and mode of operation; and Fig. 2 is an elevation of the attachment as seen from the right in Fig. 1, the shoe being removed and the bed in section.

10 denotes the bed of a clipping machine, 11 a clipping cylinder, 12 a swinging frame in which the cylinder is journaled, 13 the bed knife which coöperates with the clipping cylinder and 14 a plate by which the bed knife is carried and which is adjustably secured to the swinging frame. The swinging frame is shown as pivoted on a standard 15 which extends upward from the bed and as provided with an arm 16 from which a treadle rod 17 depends and a depending arm 18 to which a spring 19 is connected. The other end of the spring is attached to a fixed portion of the machine (not shown) and its action is to raise and retain the clipping mechanism out of operative position, said mechanism being placed in operative position as in Fig. 1 by a downward pull upon the treadle rod, the treadle not being shown as specifically it forms no portion of the present invention. Standard 15 is provided with a bracket through which arm 18 passes, said bracket

carrying a set screw which serves as a stop to limit the movement of the clipping mechanism when drawn down by the treadle rod. The screw is locked in position after adjustment by a set nut.

20 denotes a table or shoe over which the hat bodies are fed in use. This shoe is carried by a standard 21 which extends upward from the bed.

The feeding mechanism is not shown as specifically it forms no portion of the present invention.

The parts enumerated may all be of any ordinary or preferred configuration or design but may advantageously be constructed substantially as shown in the drawing.

My novel attachment comprises essentially a regulating plate 22 adapted to lie substantially parallel with the bed knife and the shoe and to coöperate with the bed knife and clipping cylinder in producing a nap corresponding in length with the thickness of the regulating plate. It will be noted that this plate lies over and is substantially parallel with the forward end of the shoe and is so adjusted that at the instant the nap is subjected to the action of the clipping mechanism the nap will stand upright against the operative face of the regulating plate as clearly shown in Fig. 1, the clipped nap being then drawn under the regulating plate and between said plate and the shoe. In practice, regulating plates may be provided of varying thickness to provide for different lengths of nap that may be required. The regulating plate is shown as carried by a swinging carrier 23 which may be cast in a single piece or made of separate parts as shown in the drawing, it being sufficient for the purposes of this specification to state that the portion or portions of the carrier to which the regulating plate is attached are shaped to lie substantially parallel with the bed knife and in alinement with the forward end of the shoe. The regulating plate is shown as attached to the carrier by thumb screws 24. In order to provide a simple and convenient vertical adjustment for the regulating plate, I preferably connect the carrier to an oscillating bar 25 shown as pivoted between ears 26 upon a bar 27 which is rigidly secured to the bed. I have shown the carrier as attached to the oscillating bar by means of screws 28 and as adjusted by means of

screws 29 which pass through the lower bar of the carrier and bear against the oscillating bar. The carrier is held in position to retain the upper side of the regulating plate in contact with the under side of the bed knife by means of a spring or springs 30, the ends of which are connected respectively to the swinging carrier and the swinging frame. Spring 19 is made strong enough to lift the swinging frame out of operative position and also to draw the carrier and regulating plate with it so that the regulating plate is retained in contact with the under side of the bed knife and is normally held at sufficient distance from the shoe to permit a hat body to be readily passed over the shoe and under the regulating plate. This position of the parts is not shown in the drawing as it is perfectly obvious and is not thought to require illustration.

The operation of my novel attachment will be readily understood from the description. It being understood that the swinging arm and the clipping mechanism normally lie in a raised position (not shown in the drawing) and that the carrier and regulating plate are swung with them out of operative position, it follows that having placed a hat body in position on the shoe, the operator is simply required to draw downward on the pedal rod which swings frame 12 and the clipping mechanism into operative position and through the engagement of the underside of the bed knife with the upper side of the regulating plate moves the latter also into operative position, that is into close engagement with the hat body on the shoe. Feeding of the hat bodies may be performed in any ordinary or preferred manner and the clipping operation may be performed as usual except that the length of the nap will be positively regulated by the regulating plate. Should portions of a hat body be thicker than others, or should the body become folded or wrinkled, the body will not be injured by the clipping mechanism as the regulating plate and with it the swinging arm and clipping mechanism will be correspondingly raised, leaving all portions of the nap of a positive and uniform length.

Having thus described my invention, I claim:

1. An attachment of the character described comprising a regulating plate adapt-

ed to lie between the bed knife and shoe of a clipping machine but independent of both bed knife and shoe, a swinging carrier for the regulating plate and yielding means for normally holding the regulating plate out of operative position.

2. An attachment for clipping machines which comprises a shoe and a clipping cylinder and bed knife carried by a swinging arm, said attachment consisting of a regulating plate adapted to lie between the shoe and the bed knife, an independent swinging carrier for the regulating plate and means for yieldingly connecting the swinging carrier to the swinging arm.

3. In a machine of the character described the combination with a clipping cylinder and a bed knife, a swinging arm by which they are carried and a shoe, of a regulating plate adapted to be held in engagement with a hat body on the shoe by the bed knife, a swinging carrier for the regulating plate, and a yielding connection between the swinging carrier and the swinging arm, whereby the swinging carrier and regulating plate are moved out of operative position by the swinging arm.

4. In a machine of the character described, the combination with a clipping cylinder and a bed knife, a swinging arm by which they are carried and a shoe, of a regulating plate adapted to be held in engagement with a hat body on the shoe by the bed knife, a swinging carrier for the regulating plate, means for adjusting the carrier and regulating plate vertically and a spring connecting the swinging carrier with the swinging arm.

5. In a machine of the character described the combination with a clipping cylinder and a bed knife, a swinging arm by which they are carried and a shoe, of a regulating plate adapted to be held in engagement with a hat body on the shoe by the bed knife, a swinging carrier for the regulating plate, an oscillating bar, means for adjustably securing the swinging carrier to the oscillating bar and a spring connecting the swinging carrier with the swinging arm.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. STARR.

Witnesses:

HARRY B. MALLORY,
FRANK E. WARREN.