Sept. 23, 1952 A. J. HAGOPIAN 2,611,609

RECIPROCATING WEB FEED

Filed June 21, 1950

Fig. 1.

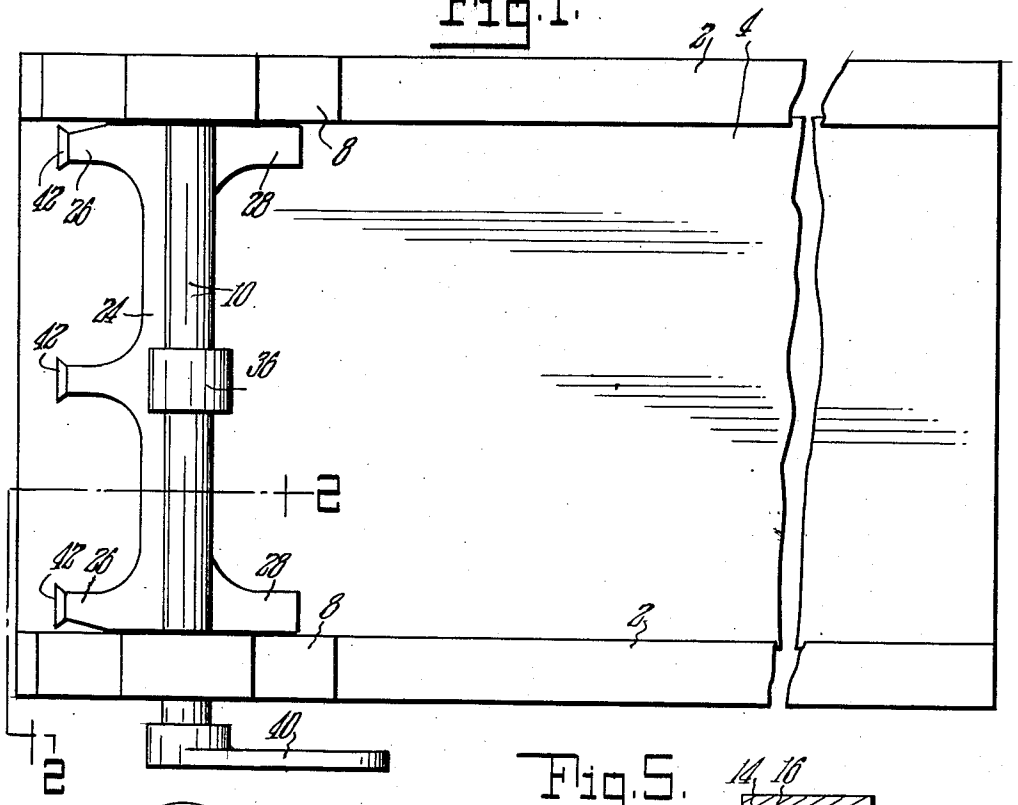


Fig. 5.

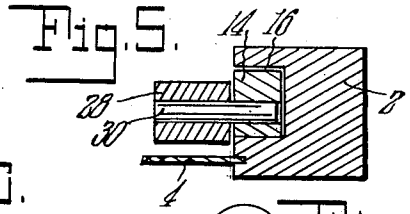


Fig. 3.

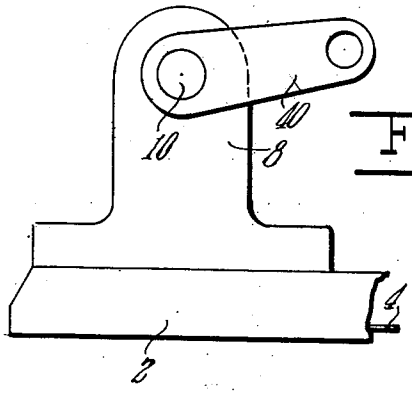


Fig. 2.

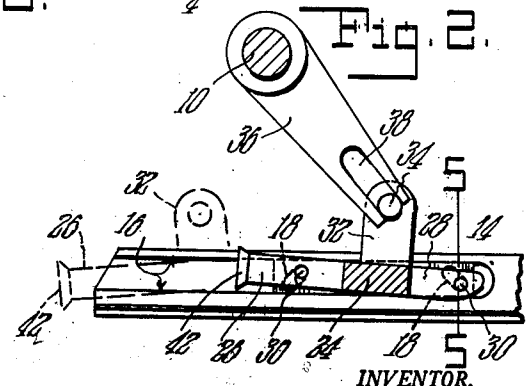
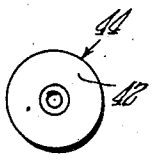


Fig. 4.



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RECIPROCATING WEB FEED

Avides J. Hagopian, Springfield, Mass.

Application June 21, 1950, Serial No. 169,442

1 Claim. (Cl. 271—2.5)

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This invention relates to feed mechanism and is directed more particularly to improvements for feeding successive portions of strip material.

The mechanism of the invention is directed to improvements in feeding devices adapted for feeding successive sections of various materials but is particularly adapted for feeding flexible yieldable material such as leather or the like.

The mechanism is characterized by means which is movable in rearward and forward feeding directions and is so constructed and arranged that as the said means moves forwardly the material being fed is impinged while when moving rearwardly the material is released.

With the foregoing and various other novel features and advantages and other objects of my invention as will become more apparent as the description proceeds, the invention consists in certain novel features of construction and in the combination and arrangement of parts as will be hereinafter more particularly pointed out in the claim hereunto annexed and more fully described and referred to in connection with the accompanying drawings wherein:

Fig. 1 is a plan view of feeding mechanism embodying the novel features of the invention;

Fig. 2 is a sectional elevational view on the line 2—2 of Fig. 1;

Fig. 3 is a side elevational view of the forward end of the mechanism shown in Fig. 1;

Fig. 4 is a plan view of one of the feed fingers of the mechanism; and

Fig. 5 is a sectional elevational view, at an enlarged scale, on the line 5—5 of Fig. 2.

Referring now to the drawings more in detail, the invention will be fully described.

Elongated side rails 2 are provided which are transversely spaced and have therebetween a sheet 4 such as metal for supporting a length of material which is to be fed from the rear right hand end of the mechanism to the left hand or forward end thereof.

Bearing brackets 8 extend upwardly from forward end portions of the rails 2 and have a transverse operating shaft 10 oscillatable therein.

The side rails may be supported by a machine to which successive portions of material are fed and the shaft 10 may be oscillated from said machine or by any suitable means in timed relation therewith. As an example, the mechanism may be used with a punch press which includes means for cutting off or operating on successive portions of material fed thereto.

Slide blocks 14 are slidable back and forth in elongated ways 16 provided on adjacent inner sides of the rails at forward ends thereof.

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These blocks 14 are provided with slots 18 which converge relatively and upwardly, see Fig. 2.

A feed member 24 extending transversely between the rails 2 has forwardly and rearwardly extending arms 26 and 28. Pins 30 fixed to and extending outwardly from arms 26 and 28 are disposed in the slots 18 of the slide members 14. The member 24 is supported by the blocks 14 which are slidable in the ways 16.

A lug 32 extends upwardly from the feed member 24 and is provided with a pin 34.

A lever 36 fixed to the shaft 10 has a slot 38 in the lower free end thereof in which the pin 34 is received, see Fig. 5.

As the shaft 10 is oscillated in opposite directions so that lever 36 is swung back and forth, the blocks through member 24 are moved back and forth in the ways therefor.

A lever 40 may be fixed to shaft 10 which may be connected to operating means for operating the mechanism.

Feed fingers 42 are secured to forward ends of arms 26. These are preferably in the form of circular discs having relatively sharp peripheral edges for impinging the material being fed. The fingers may be turned in new positions to present unworn portions for impinging the material.

A web of material may be laid on member 4 for feeding the same forwardly. As the operating shaft is oscillated, the feed member is moved back and forth it being supported by the blocks which are slidable in the ways.

The slot and pin arrangement of the blocks and feed member is such that as the feed member moves from its rear position in a forward feeding direction, the fingers tilt downwardly to engage and slightly impinge the material being fed.

The material is fed forwardly as the feed member moves to the left and when said member reaches the end of its stroke and is to move to the right, the pin and slot connections cause the fingers to immediately elevate and thereby disengage the material.

In this way as the feed member moves forwardly and rearwardly the fingers engage and feed the material and then release it whereby successive portions of the material are fed forwardly.

The invention may be embodied in other specific forms without departing from the essential characteristics thereof. Hence, the present embodiments are therefore to be considered in all respects merely as being illustrative and not as being restrictive, the scope of the invention being

indicated by the appended claim rather than by the foregoing description, and all modifications and variations as fall within the meaning and purview and range of equivalency of the appended claim are therefore intended to be embraced therein.

What it is desired to claim and secure by Letters Patent of the United States is:

Apparatus for feeding successive portions of material comprising in combination, elongated horizontal side rails and an elongated material support having opposite longitudinal side portions secured to lower portions of said rails holding the rails in transversely spaced relation, brackets secured to and extending upwardly from said rails having a shaft oscillatable therein, inner adjacent sides of said rails provided with longitudinal ways disposed longitudinally thereof, elongated blocks slidable in said ways having elongated slots in opposite ends thereof relatively converging inwardly and upwardly, an elongated transverse feed member extending between said side rails having elongated side arms extending forwardly and rearwardly thereof and disposed adjacent and parallel to said side rails, pins extending from forward and rear ends at outer sides of said side arms disposed in the slots of said blocks, said slots and pins arranged for swinging of said feed member relative to said blocks and rails on an axis transverse to said side rails to move forward ends of the side arms of said feed member up and down towards and away from said support, a lever fixed to said shaft having an end depending therefrom, a lug extending upwardly from said feed member, pin and slot connections provided on the end of said lever and lug operatively connecting said lever to said feed member whereby said feed member is swingable by oscillations of said shaft, and feed fingers on forward ends of the side arms of the feed member.

AVIDES J. HAGOPIAN.

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