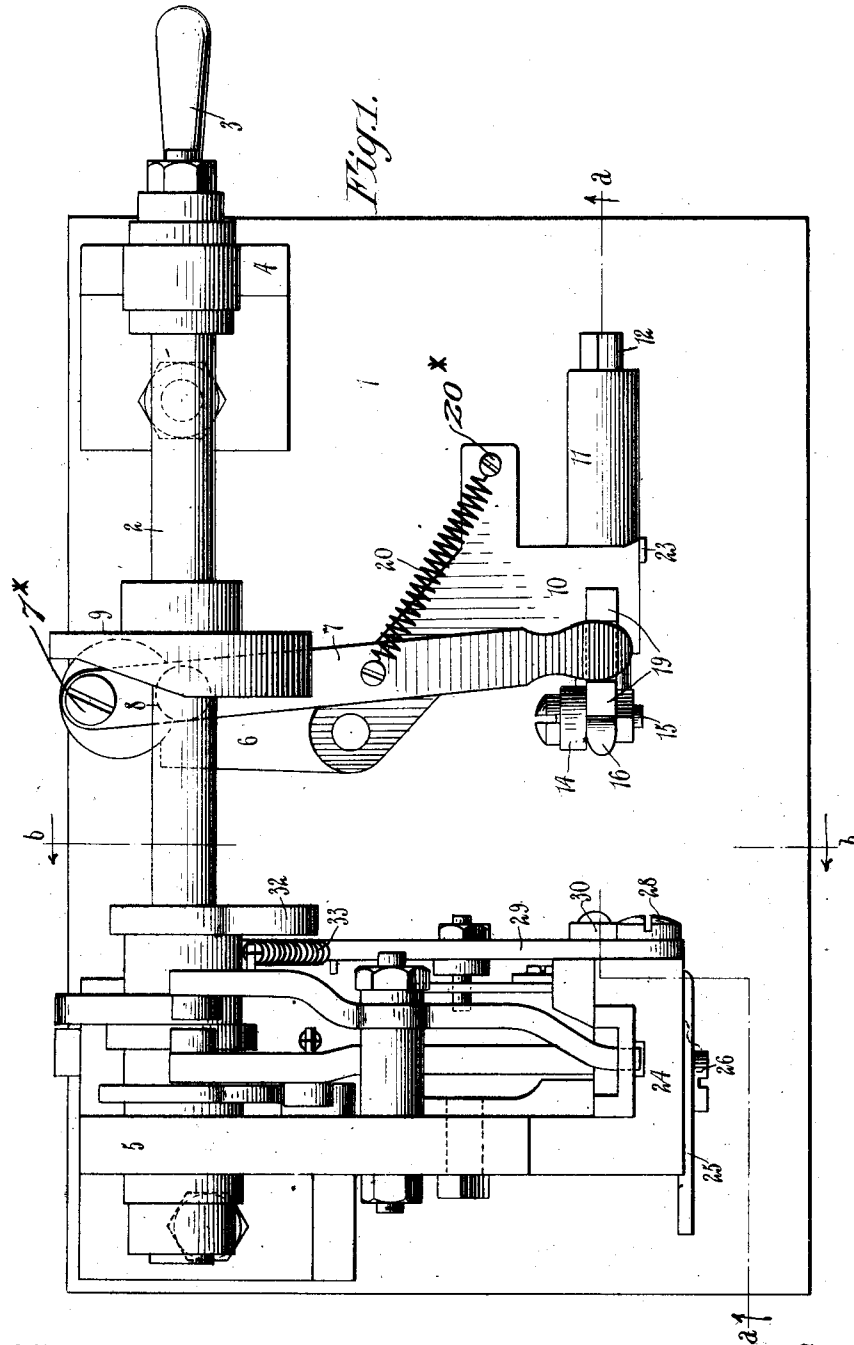


O. ANCHELL.
WIRE FEEDING DEVICE.
APPLICATION FILED SEPT. 30, 1910.

Patented Mar. 11, 1913.

3 SHEETS—SHEET 1.

1,055,852.



Witnesses:
Julius H. Smith
George Davis

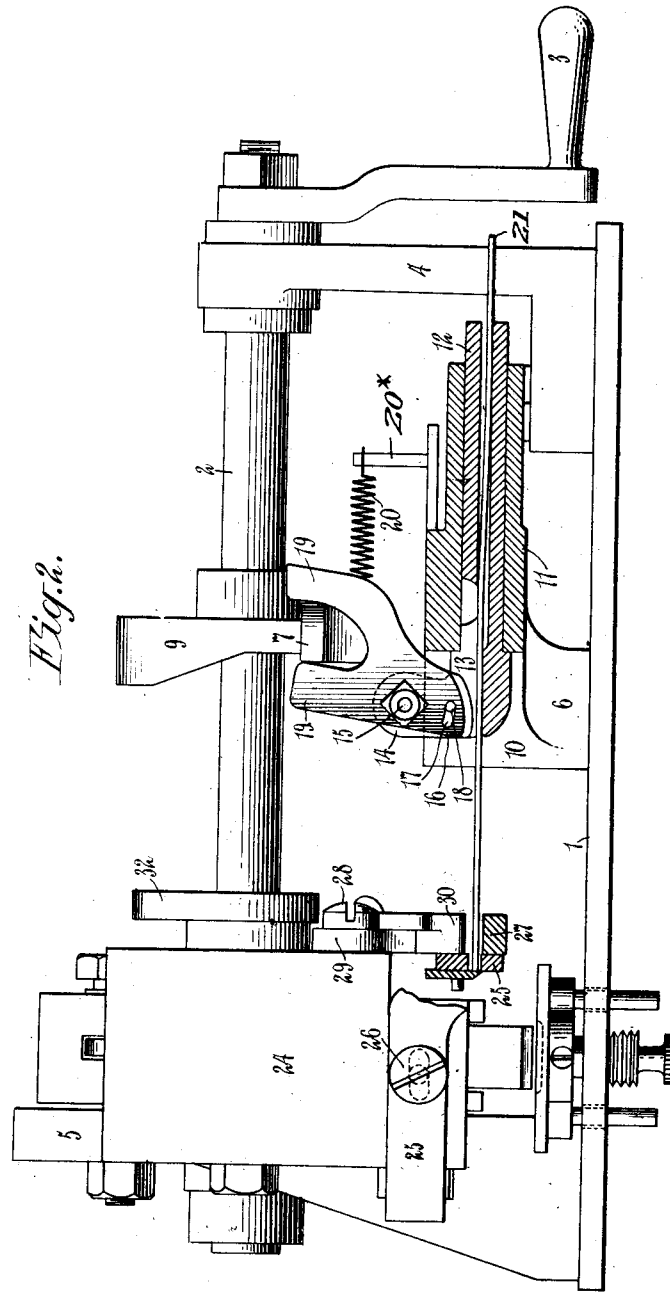
Inventor
Oscar Anchell
By his Attorney
Edgar M. Leonard

1,055,852.

O. ANCHELL.
WIRE FEEDING DEVICE.
APPLICATION FILED SEPT. 30, 1910.

Patented Mar. 11, 1913.

3 SHEETS—SHEET 2.



Witnesses:
J. George Berry

Inventor
Oscar Anchell
By his Attorney
Edw. H. Lennard

O. ANCHELL.
WIRE FEEDING DEVICE.
APPLICATION FILED SEPT. 30, 1910.

1,055,852.

Patented Mar. 11, 1913.

3 SHEETS—SHEET 3.

Fig. 3.

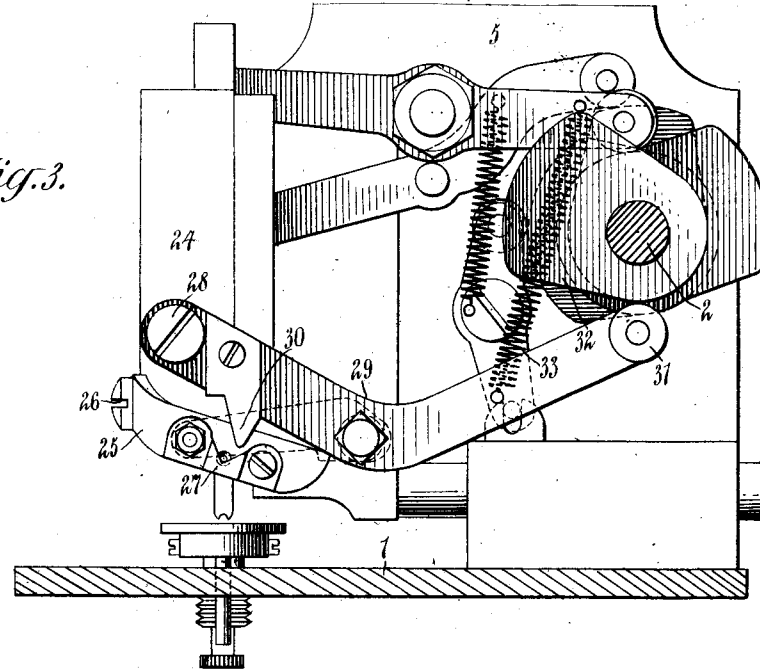
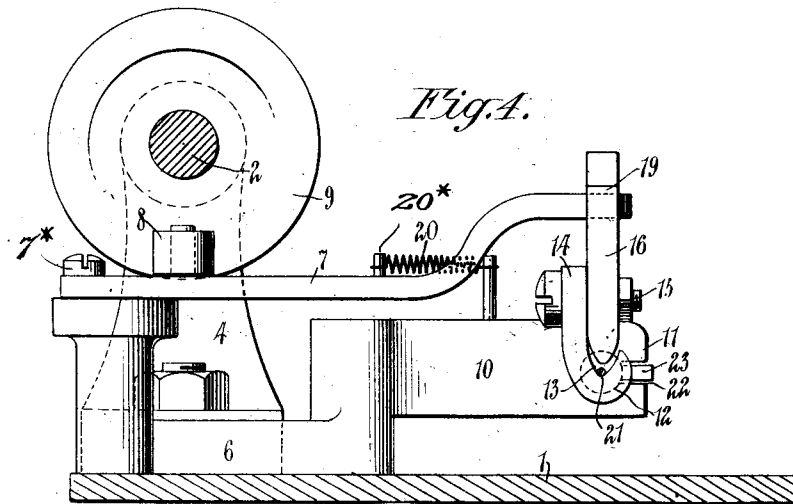


Fig. 4.



Witnesses:
Julius H. Smith
George Barry

Inventor
Oscar Ancell
By his Attorney
Charles H. Lenn

UNITED STATES PATENT OFFICE.

OSCAR ANCHELL, OF NEW YORK, N. Y.

WIRE-FEEDING DEVICE.

1,055,852.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Original application filed May 18, 1910, Serial No. 562,024. Divided and this application filed September 30, 1910. Serial No. 584,754.

To all whom it may concern:

Be it known that I, OSCAR ANCHELL, a citizen of the United States, and resident of the borough of Manhattan, in the city and State of New York, have invented a new and useful Improvement in Wire-Feeding Devices, of which the following is a specification.

This invention relates to a wire feeding device and more particularly to means for feeding wire from a spool or roll to a staple-forming or wire-binding mechanism, with the object in view of providing apparatus of this character which is adapted to speedily and accurately cut off predetermined lengths of wire for forming staples, without injuring the wire.

Another object is to provide an apparatus of this character which is very simple in its construction and operation.

A further object is to provide certain improvements in form, construction and arrangement of the several parts whereby the above named objects may be effectively carried out.

This application is a division of an application for hand wire stapling machines, filed by me, May 18, 1910, Serial No. 562,024.

A practical embodiment of the invention is represented in the accompanying drawings, in which,

Figure 1 represents a top plan view of the complete apparatus. Fig. 2 represents a section taken in the plane of the line *a a* of Fig. 1, looking in the direction of the arrows. Fig. 3 represents a section taken in the plane of the line *b b* of Fig. 1, looking in the direction of the arrows, and Fig. 4 represents a section taken in the plane of the same line, looking in the reverse direction.

The base of the machine is denoted by 1. A driving shaft, denoted by 2, is journaled at opposite ends of the apparatus in uprights 4, 5, which driving shaft is provided at one extremity with suitable means for manual operation, such, for instance, as a hand crank 3.

A support 6 is mounted at the rear of the base 1, for supporting a horizontally extending arm 7 pivoted thereto by a screw 7*. This arm 7 extends transversely under the driving shaft 2; and is provided near its pivoted end with a contact roller 8 arranged to engage the operating face of a cam 9 which is fixedly mounted on the shaft

2, for operating the said arm 7. The support 6 is provided with a forwardly extending bracket 10, provided near its front edge with a horizontally disposed slideway 11, fitted to receive a hollow slide 12, adapted to reciprocate therein in a line substantially parallel with the driving shaft 2. The slideway 11 has a horizontal slot in its front wall arranged for engagement with the laterally extending guiding pin 23 carried by the hollow slide 12. The slide 12 has a grooved extension at one end which is also provided with an upwardly projecting lug 14, to which is pivoted at 15, a jaw 16, which jaw 16 also has a pin and slot engagement with the lug 14, through the slot 17 in the jaw and the pin 18 on the lug 14. The jaw 16 is further provided with a pair of upwardly extending fingers 19, between which the end of the arm 7 is located for rocking the jaw on its pivot 15, as the arm 7 is actuated by the cam 9 on the driving shaft 2.

A spring 20 is secured at one end to a stanchion 20* on the bracket 10, and at the other end to the arm 7 for normally holding the said arm and hence the jaw 16, withdrawn against the operation of the cam 9.

The upright 5 at the opposite end of the base 1 from the crank 3, carries a head 24 to which is secured a bent arm 25 by means of a screw 26. This arm 25 supports a grooved wire receiver 27 for holding the wire 21 in position to be severed. A second bent arm 29 is pivoted to the head 24, at 28, and carries a downwardly extending finger 30, corresponding at its lower extremity with the cross sectional shape of the groove in the wire receiver 27. This arm 29 carries at its other extremity, a contact roller 31 arranged to engage a cam 32 on the drive shaft 2, said roller 31 being held in engagement with the cam 32 by means of a spring 33.

It will be noted that the jaw 16 is provided with a downwardly advancing lower edge which corresponds in cross section to the shape of the groove in the extension of the hollow slide 12 and that the swing of the said jaw about its pivot 15, is limited by the engagement of the slot 17 and pin 18 heretofore described.

In operation, wire may be fed from a suitable source through the hollow slide 12 to the receiver 27, as indicated in Fig. 2 of the drawings. The drive shaft 2 may then

be rotated by means of the crank 3, and this rotation will cause the cam 9 to move the arm 7 through the roller 8, which movement of the arm 7 will rock the jaw 16 by means of the engagement of the arm 7 with one of the fingers 19. The jaw will be rocked until its lower edge engages the wire in the extension of the slide 12, at which time the pin 18 will be at the limit of its movement with respect to the slot 17. At this stage of the operation, the finger 30 is in a raised position, and as the cam 9 continues to rotate, it forces the slide 12 and the wire therein ahead under the finger 30, through the medium of the jaw 16 mounted on the lug 14 on the slide 12. It will be noted that the pin 18 engaging the end of the slot 17, prevents the further rocking of the jaw 16, after it engages the wire, and that consequently the tendency of the jaw 16 to further rocking which is present during the advance movement of the slide 12, is taken up by the pin 18 and not by the pressure of the jaw on the wire, which pressure would tend to injure the same. After the slide 12 and the wire therein have been advanced as far as the cam 9 can force them, the cam 32 depresses the arm 29 and causes the finger 30 to engage and hold the wire 21 in the receiver 27. The continued rotation of the shaft 2 causes the cam 9 to permit the arm 7 to be withdrawn by the spring 20, and consequently rocks the jaw 16 so that it no longer engages the wire 21. In this return movement the jaw 16 is rocked until the pin 18 engages the other end of the slot 17, as shown in Fig. 2, the continued action of the spring withdrawing the slide 12 to its initial position, ready for repetition of the operation just described.

It is to be understood that various changes may be resorted to in the construction, form and arrangement of the several parts without departing from the spirit and scope of my invention; hence I do not wish to limit myself strictly to the structure herein shown and described, but

What I claim is:

1. Apparatus of the character described, comprising a hollow slide having a grooved extension for supporting the wire, an upward projection thereon, a gripping jaw pivotally mounted on said projection, said jaw being provided with a downwardly advancing lower edge whereby the jaw will frictionally engage the wire only when the former is in a vertical position, said jaw being provided with a pair of upwardly extending fingers, an operating arm having one end lying between said fingers, means for actuating said arm for rocking the jaw into a vertical position so as to cause it to

successively frictionally engage the wire and advance the slide, and independent means for returning the jaw and slide to their initial positions.

2. Apparatus of the character described, comprising a hollow slide for supporting the wire, a gripping jaw pivotally mounted thereon, means for successively rocking the jaw so as to engage the wire and advance the slide, and means for limiting the rocking movement of the jaw so that it can only engage the wire with sufficient pressure to hold the same, whereby the continued tendency of the jaw to rock during the advance of the slide is resisted by said limiting means and not by the wire.

3. Apparatus of the character described, comprising a hollow slide for supporting the wire, a gripping jaw pivotally mounted thereon, means for successively rocking the jaw so as to engage the wire and advance the slide, and means for limiting the rocking movement of the jaw so that it can only engage the wire with sufficient pressure to hold the same, said means consisting of a pin and slot engagement between the jaw and slide, whereby the continued tendency of the jaw to rock during the advance of the slide is resisted by said limiting means and not by the wire.

4. Apparatus of the character described, comprising a hollow slide for supporting the wire, a gripping jaw pivotally mounted thereon, the said jaw being provided with a downwardly advancing lower edge, whereby the jaw will frictionally engage the wire only when the former is in a vertical position, means for normally holding the jaw out of a vertical position, and means for positively rocking the jaw into a vertical position for engaging the wire.

5. Apparatus of the character described, comprising a hollow slide for supporting the wire, a gripping jaw pivotally mounted thereon, the said jaw being provided with a downwardly advancing lower edge whereby the jaw will frictionally engage the wire only when the former is in a vertical position, means for normally holding the jaw out of a vertical position, means for positively rocking the jaw into a vertical position for engaging the wire, and means independent of the wire for preventing the jaw from being rocked beyond a vertical position.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this twenty-seventh day of September 1910.

OSCAR ANCHELL.

Witnesses:

F. GEORGE BARRY,
OTTO W. HOLMGREN.