

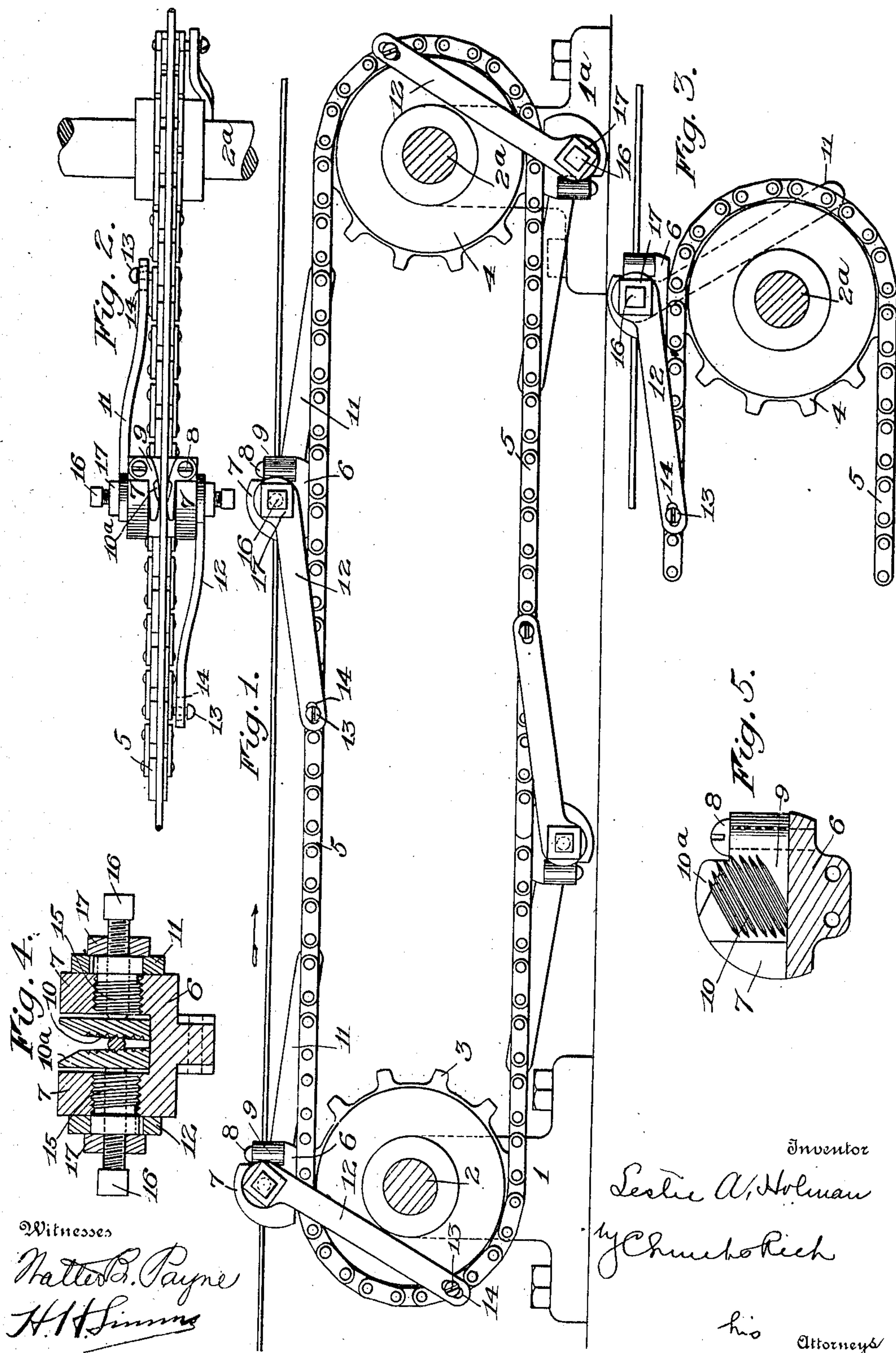
No. 872,064.

PATENTED NOV. 26, 1907.

L. A. HOLMAN.

FEEDING APPARATUS FOR CABLES, STRANDS, AND THE LIKE.

APPLICATION FILED JUNE 15, 1907.



Witnesses

Walter B. Payne
H. H. Simms

H. H. Linnings

Inventor

Sister A. Holman

by Church & Rich

his Attorneys

UNITED STATES PATENT OFFICE.

LESLIE A. HOLMAN, OF ROCHESTER, NEW YORK, ASSIGNOR TO WILLIAM P. RANDALL, OF LEROY, NEW YORK.

FEEDING APPARATUS FOR CABLES, STRANDS, AND THE LIKE.

No. 872,064.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed June 15, 1907. Serial No. 379,135.

To all whom it may concern:

Be it known that I, LESLIE A. HOLMAN, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Feeding Apparatus for Cables, Strands, and the Like; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of the specification, and to the reference-numerals marked thereon.

This invention relates to apparatus for feeding cables, rods and strands of all shapes and kinds in the direction of their lengths and its object is to provide a universal feeding mechanism, complete in itself, for either continuous or intermittent feed.

To these and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 is a side view of one embodiment of my invention showing one clamp feeding a strand of wire, another clamp about to grip the strand and other clamps moving to gripping position. Fig. 2 is a top view of one of the clamps as it looks when feeding the strand. Fig. 3 is a side of one of the clamps as it appears when releasing a strand. Fig. 4 is a transverse sectional view showing details of one of the clamps, and Fig. 5 is a longitudinal section of one of the clamps.

Similar reference numerals in the several figures indicate similar parts.

In the preferred embodiment of my invention I employ two suitable supports 1 and 1^a, which carry respectively shafts 2 and 2^a, either or both of which may have any suitable driving power connected thereto. Each carries respectively sprockets 3 and 4 or other wheels connected by an endless carrier 5 which as illustrated is in the form of a sprocket chain and arranged on this endless carrier at suitable intervals is a number of clamps. Each clamp, preferably, comprises a frame 6 forming one of the links of the chain, and having two parallel lugs 7 spaced apart to receive the material between them. Preferably pivoted at their front ends as on pivot pins 8 are two clamping jaws 9 which have their rear ends positioned between the

lugs or ears 7 and their proximate faces 55 roughened and inclined at 10 throughout the greater portion of their length to permit the jaws to pass freely on opposite sides of the material, the roughened inclined portions causing them to positively engage the strand 60 cable or rod irrespective of any inequalities in the diameter of the same.

The means for causing the jaws to grip and to release a material in the present instance is controlled by the bending of the endless carrier and for this purpose is connected to the carrier in such a manner that the clamps are operated on the bending of the carrier in passing about the wheels. This means, preferably, comprises a pair of levers 11 and 12, 65 the former of which is connected to one of the jaws and has a lost motion connection, in the form of a pin 13 and slot 14 with the carrier at a point in advance of the clamp, and the latter of which is connected to the other jaw 75 and has a similar lost motion connection with the carrier at a point in the rear of the clamp. The connection between each lever 11 and 12 and a jaw 9 is in the form of a screw keyed to the lever and working through 80 an opening in one of the ears or lugs 7 so that its inner end may engage the outer face of one of the jaws; and to vary the distance between the jaws for different sizes of cables, strand or the like the bearing portion of each 85 screw 15 is made adjustable and to this end is preferably in the form of a separate screw 16 passing axially therethrough, and secured by lock nuts 17.

Assuming that the feeding takes place in 90 the direction of the arrow in Fig. 1, in passing about the wheel 3 the forward lever 11 and a clamp will first pass to the working position causing one of the jaws to be moved to clamped position and the strand or cable to 95 be guided in between the jaws by bevels 10^a, and then the other lever will gradually be moved by the bending of the carrier to elevate the rear end thereof and to grip the material. The clamp now moves bodily with 100 the material and when the releasing point is approached the forward lever is moved downwardly at its swinging end as shown in Fig. 3, thereby causing its jaw to automatically release the material. The following clamps 105 successively grip and release the strand.

It will be noted that I have provided a mechanism for causing one or more clamps

to travel bodily in the direction of feeding of the material with a means to cause the clamp to automatically grip material when the clamp is located at one point in its travel and
 5 separate means for automatically effecting the release of this material when the clamp is located at another point in its travel.

I claim as my invention:

1. In a feeding apparatus for cables,
 10 strands, or the like, an endless carrier and a clamp on the carrier having connection with the latter by which it is operated.

2. In a feeding apparatus for cables, strands, or the like, an endless carrier, a
 15 clamp carried thereby, and means for operating the clamp operated by the carrier.

3. In a feeding apparatus for cables, strands and the like, an endless carrier, a clamp on the carrier, and means for operat-
 20 ing the clamp controlled by the bending of the carriers.

4. In a feeding apparatus for cables, strands and the like, an endless carrier, a clamp carried thereby and separate means
 25 for effecting the gripping and the releasing of material by the clamp, operated by the bending of the carrier.

5. In a feeding apparatus for cables, strands and the like, an endless carrier, a
 30 clamp carried thereby and having separate connections with the carrier for effecting the gripping and the release of material.

6. In a feeding apparatus for cables, strands and the like, a clamp having two
 35 jaws, mechanism for causing the clamps to travel bodily in the direction of the feeding of the material, means for operating only one jaw to grip the material when the clamp is located at one point in its travel and means
 40 for operating only the other jaw to release the material when the clamp is located at another point in its travel.

7. In a feeding apparatus for cables, strands and the like, an endless carrier, a
 45 clamp carried thereby and two connections between the clamp and the carrier, one in rear of and the other in front of the clamp, said connections being adapted to respec-

tively effect the grip and the release of the material. 50

8. In a feeding apparatus for cables, strands and the like, an endless carrier, a clamp carried thereby, having two jaws, a lever connecting one jaw and the carrier in rear of the clamp, and a lever connecting the
 55 other jaw and the carrier in front of the clamp.

9. In a feeding apparatus for cables, strands and the like, an endless carrier, a clamp carried thereby embodying two jaws,
 60 screws for moving the jaws and connections between the screws and the jaws to effect the grip and the release of the material.

10. In a feeding apparatus for cables, strands and the like, a clamp having for-
 65 wardly and rearwardly extending operating levers, and mechanism for moving the clamp bodily in the direction of feeding of the material.

11. In a feeding apparatus for cables, strands and the like, a clamp embodying a pair of jaws, mechanism for moving the clamp bodily in the direction of feeding of the material and means for operating the jaws
 70 embodying a pair of screws having adjustable portions bearing against the jaws. 75

12. In a feeding apparatus for cables, strands and the like, an endless carrier, and a clamp provided with forwardly and rear-
 80 wardly extending operating levers having lost motion connection with the carrier.

13. In a feeding apparatus for cables, strands and the like, an endless carrier and a plurality of clamps arranged thereon to suc-
 85 cessively engage and release the material, and each comprising a pair of jaws, screws having adjustable bearing surfaces engaging the jaws, and forwardly and rearwardly extending levers connected to the screws and having lost motion connection with the car-
 90 rier.

LESLIE A. HOLMAN.

Witnesses:

H. H. SIMMS,

RUSSELL B. GRIFFITH.