(No Model.) 2 Sheets—Sheet 1.

A. W. SCHLICHTE.

WEB CUTTING ATTACHMENT FOR LINING MACHINES.

No. 420,283. Patented Jan. 28, 1890.

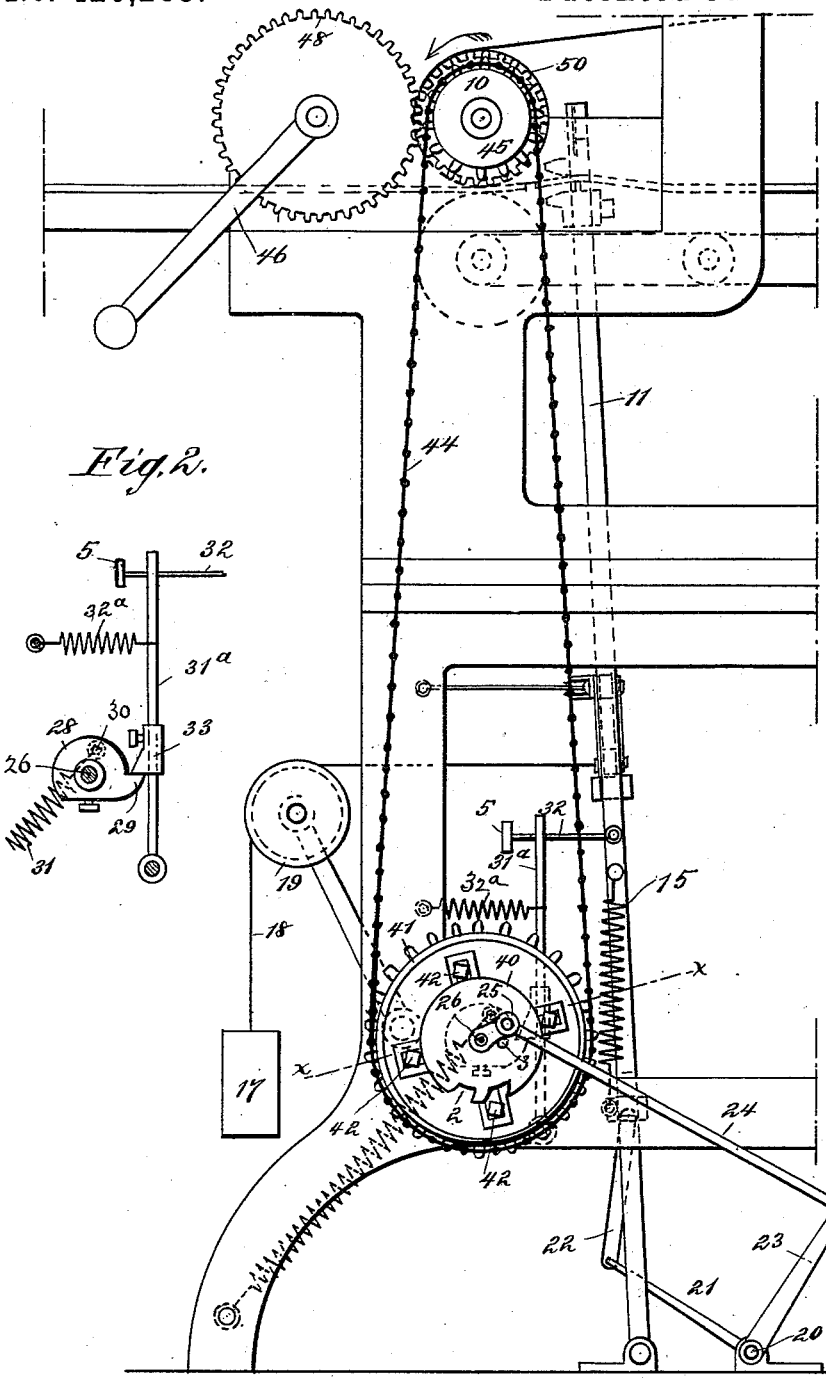

Fig. 2. Fig. 1.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

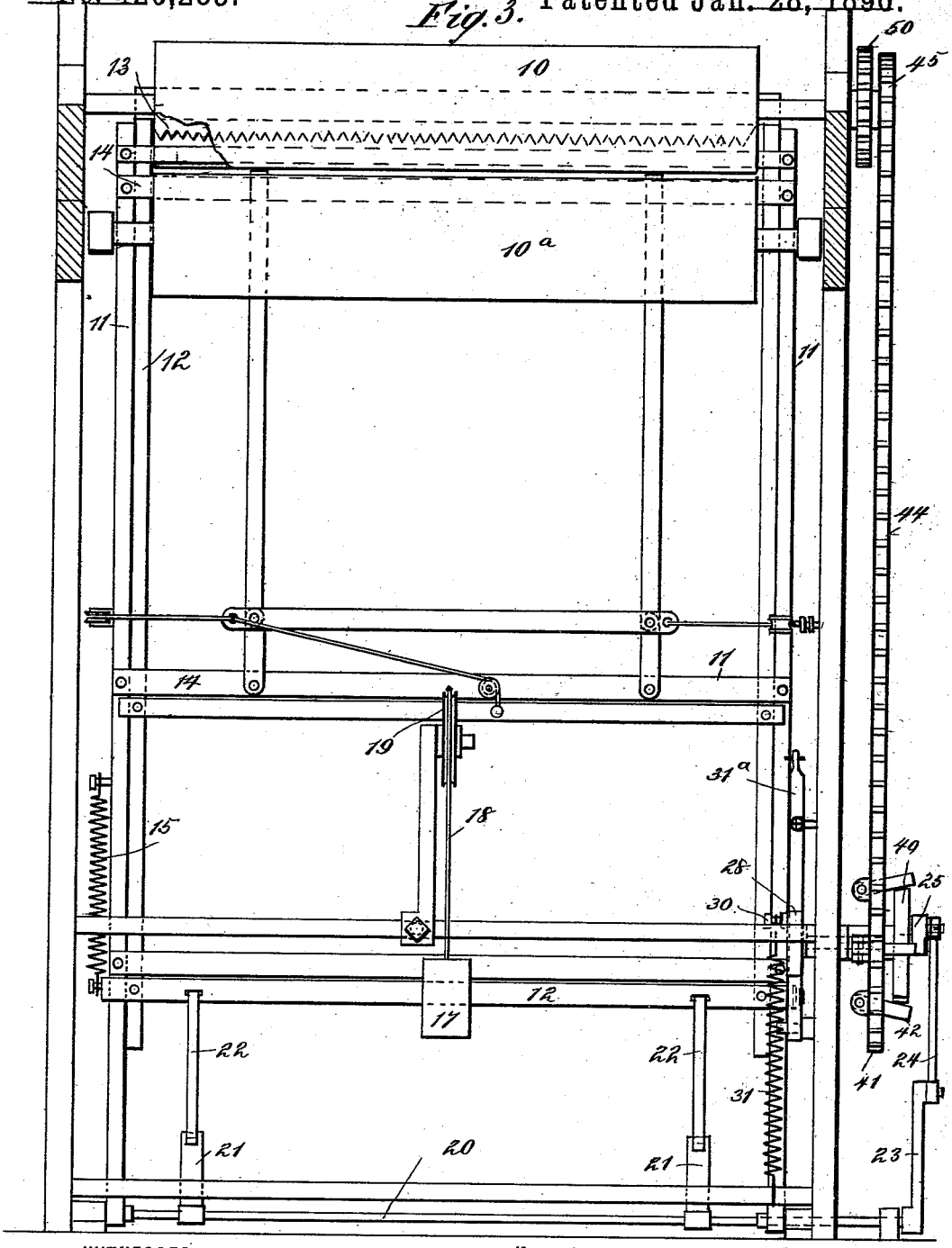

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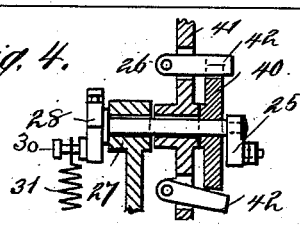
Fig. 4.



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UNITED STATES PATENT OFFICE.

ARNOLD W. SCHLICHTE, OF NEW YORK, N. Y.

WEB-CUTTING ATTACHMENT FOR LINING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 420,283, dated January 28, 1890.

Application filed August 5, 1889. Serial No. 319,758. (No model.)

To all whom it may concern:

Be it known that I, ARNOLD W. SCHLICHTE, of New York, in the county and State of New York, have invented a new and Improved Web-Cutting Attachment for Lining-Machines, of which the following is a full, clear, and exact description.

This invention relates to an attachment designed for use in connection with such a machine as is described in my prior patent, No. 350,272, of October 5, 1886, the object of the invention being to provide for the automatic action of the web-severing mechanism, such mechanism in the old construction having been operated by hand.

To the end above set forth, the invention consists of certain novel constructions, arrangements, and combinations of elements, which will be hereinafter described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side view of my automatic web-cutting attachment, the parts being shown as they appear just prior to the cutting action. Fig. 2 is a detail view of the tripping attachment. Fig. 3 is a cross-sectional view of a machine embodying my attachment, parts being broken away; and Fig. 4 is a sectional view on line *x x* of Fig. 1.

In the drawings above referred to, 10 and 10^a represent the feeding-rollers, between which the web, pasted on one side, and the sheets of card-board to be lined are passed, the rollers acting to feed the sheets and the web forward, and at the same time to press the web to the sheets. Just to the rear of the rollers 10 and 10^a, I pivotally mount a frame 11, and within the frame 11, I mount a sliding frame 12, which carries a severing-knife 13, preferably formed with a serrated edge.

The frame 12 is guided by cross-strips 14, and is normally held in the position in which it is shown in the drawings by springs 15, while the two frames are held close up to the rollers 10 and 10^a by a weight 17, which is connected to the frame 11 by a cord 18, which passes over a sheave 19, as clearly shown in Fig. 1.

To sever the web, the knife-frame 12 is drawn down, and to so draw the frame down I provide a rock-shaft 20, having arms 21, that are connected to the frame 12 by links 22. The shaft 20 also carries an arm 23, to which arm there is connected a rod 24, that extends to a short crank or lever 25, said lever being loose upon a shaft 26, that is mounted in bearings formed in a bracket 27, that is made fast to the main frame of the machine. The shaft 26 carries a fixed disk 28, having a catch 29 and an inwardly-extending boss or projection 30, to which projection there is connected a spring 31, that is secured to any fixed object—as, for instance, the machine-frame.

To the bracket 27, I pivotally connect a lever 31^a, the upper end of the lever being connected to the frame 11 by a rod 32, which passes through the lever and carries a stop 5. This lever 31^a carries an adjustable stop 33, against which stop the catch 29 at times abuts, as will be presently explained, the lever being held against the disk 28 by a spring 32^a; or the lever may be held to the disk in any other proper way.

In addition to the parts above referred to, the shaft 26 carries a fixed disk 40, having one or more notches or recesses 2 in its peripheral edge, and upon the shaft there is loosely mounted a chain-wheel 41, which carries pivotally-supported and laterally-extending dogs or pawls 42, one, two, three, four, or more of these dogs being employed. Four dogs are shown in the drawings.

The wheel 41 is driven by a chain 44, which runs upon a wheel 45, that is carried by the shaft of the feeding-roller 10. Motion may be imparted to the roller 10 in any desired manner—as, for instance, by means of a crank 46, that controls a gear 48, said gear engaging a gear 50, that is carried by the shaft of the roller 10.

From the above description it will be seen that if the crank 46 be turned in a direction proper to advance the roller 10, as indicated by its arrow, the chain 44 will be moved to advance the wheel 41. It will be remembered that the disks 28 and 40 are fast upon the shaft 26, and from the construction illustrated in the drawings it will be seen that the tend-

ency of the spring 31 is to hold the shaft 26 and the parts controlled thereby one half-turn in advance of the position in which said parts are shown in the drawings—that is to say, in a position such that the recesses 2 of the disk 40 will be above the shaft.

When the disk 40 is in the position just referred to, it follows that as the wheel 41 is advanced one of the pawls or dogs 42 will drop into one of the recesses 2, and the shaft 26 will be moved forward against the tension of the spring 31 until the stud or projection 30 is carried just past the center, when the spring 31 will act to carry the parts slightly forward with a quicker motion than that imparted by the drive-chain, this quick forward motion, however, being checked by the catch 29 striking against the stop 33. As the motion just described takes place the pawl 42 will drop from engagement with the disk 40, and all parts will be held as represented in the drawings, the arm 25 at this time resting on a pin or projection 3, that is carried by the disk 40. If now the leading edge of a sheet of board strikes the frame 11, so as to move it slightly forward, the stop 33 will be carried from engagement with the catch 29, and the spring 31 will then be free to carry the shaft 26 forward, and as the shaft 26 is moved forward the rock-shaft 20 will be turned and the frame 12 drawn down to carry the severing-knife through the web.

The above-described movement is repeated as each sheet of board passes through the machine.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a web-severing mechanism, of a shaft, a notched disk carried thereby, a wheel carrying pawls or dogs that are arranged to engage the notched disk, a means for advancing the wheel, a catch carried by the shaft, a stop arranged to engage the catch, and connections, substantially as described, between the severing mechanism and the shaft.

2. In a lining-machine, the combination, with a web-severing mechanism, of a rock-shaft connected thereto, a shaft carrying a notched disk and a loosely-mounted crank-arm that is connected to the rock-shaft, a wheel carrying laterally-extending pawls that are arranged to engage the notched disk, a catch carried by the disk-shaft, a stop arranged to engage the catch, and a spring 31.

3. The combination, with a tilting frame, of a sliding frame carried thereby, a knife carried by the sliding frame, a rock-shaft, connections between said shaft and the sliding frame, a shaft 26, disks 28 and 40, carried thereby, an arm 25, held thereon and connected to the rock-shaft, a spring 31, a lever 31^a, a stop carried thereby and arranged to engage a catch carried by the disk 28, a wheel 41, pawls 42, carried thereby, and a means for driving the wheel 41, as and for the purpose stated.

ARNOLD W. SCHLICHTE.

Witnesses:
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C. SEDGWICK.