

No. 844,880.

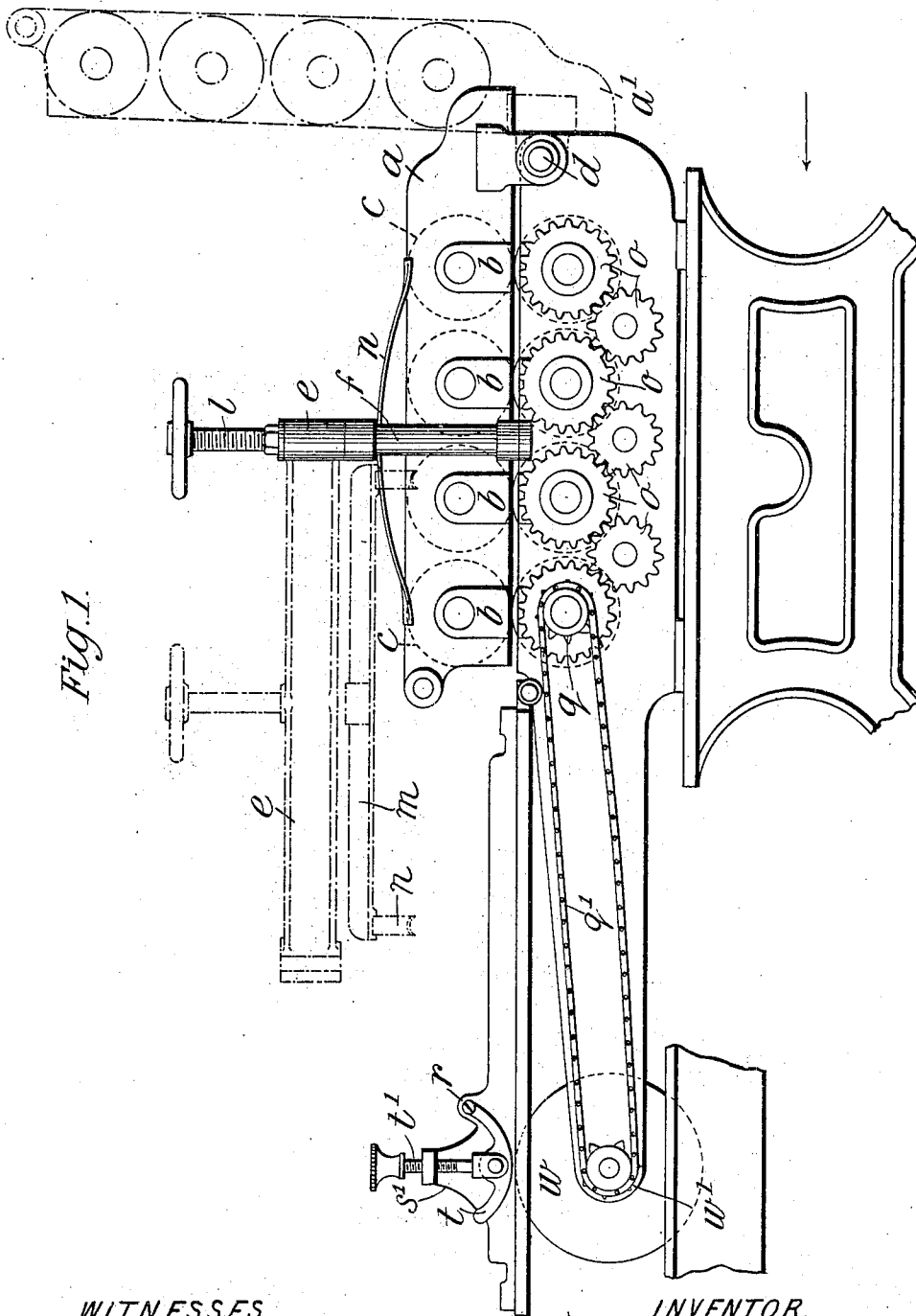
PATENTED FEB. 19, 1907.

P. LAWRENCE.
CARDBOARD GLUING MACHINE.

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APPLICATION FILED MAY 25, 1906.

2 SHEETS—SHEET 1.



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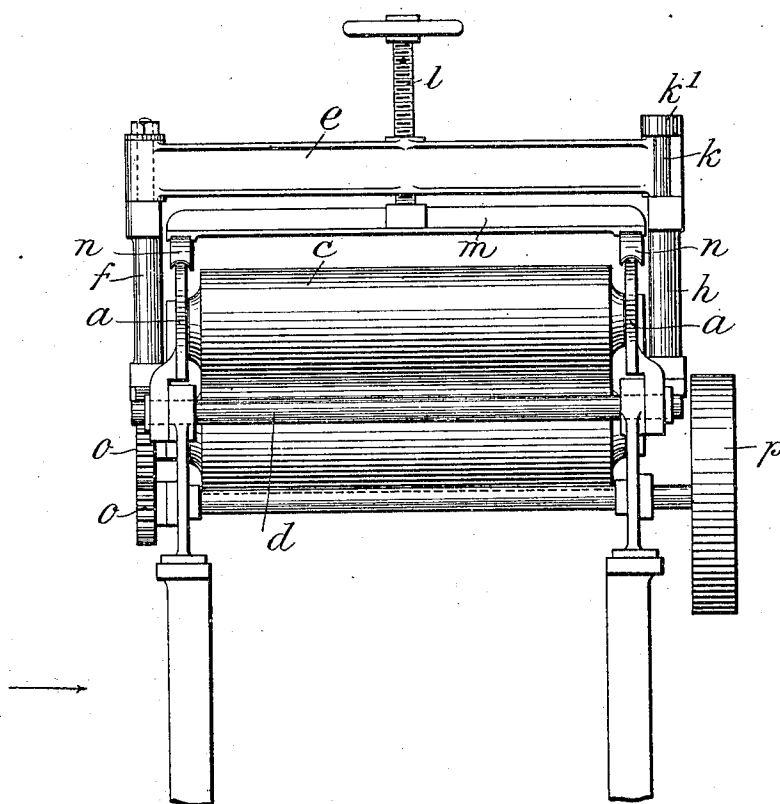
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2 SHEETS—SHEET 2.

Fig. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

PHINEAS LAWRENCE, OF LONDON, ENGLAND.

CARDBOARD-GLUING MACHINE.

No. 844,880.

Specification of Letters Patent.

Patented Feb. 19, 1907.

Application filed May 25, 1906. Serial No. 318,780.

To all whom it may concern:

Be it known that I, PHINEAS LAWRENCE, a subject of His Majesty the King of Great Britain, residing at London, England, have
5 invented a certain new and useful Improvement in Cardboard-Gluing Machines, of which the following is a specification.

This invention relates to improvements in that class of cardboard-gluing machines for
10 use in box-making and like purposes in which the contrivance for gluing the edges of the material and the horizontal rollers for compressing the edges together are combined in one machine.

15 Hitherto it has been customary to adjust the pressure of the upper of each pair of rollers by applying a force to each roller separately, the roller and its bearing being moved bodily in the framework of the machine.
20 This method is open to the objection that it is very difficult to evenly distribute the pressure in cases where there are a number of rollers to be adjusted, and, moreover, the portions of the framework beneath the rollers and the rollers themselves become clogged
25 with glue and dirt, as they cannot readily be removed for cleansing purposes, and then only individually.

30 The principal object of the present invention is to obviate these disadvantages, and this is effected by carrying the upper rollers in a movable frame, so that both the upper and lower rollers are readily accessible, and by providing means for applying pressure simultaneously to all the rollers.

35 A further improvement in connection with the glue-applying device is hereinafter described.

40 In order that the details of construction and operation of the invention may be more readily understood, reference is made to the accompanying drawings, in which—

45 Figure 1 is a side elevation, and Fig. 2 an end elevation, of a part of a machine, each looking in the directions of the arrows, respectively.

50 In carrying my invention into effect arms *a*, forming a frame, carry fixed bearings *b* for the upper rollers *c*. The frame *a a* pivots on a rod *d*, attached to the frame of the machine, or is otherwise pivoted, and is prevented from moving through more than one right angle by means of a projecting part or tailpiece *a'*, forming a stop.

55 Attached to the frame of the machine are two posts *f h*, which carry a cross-bar *e* above

the rollers. This cross-bar is attached by one end and is rotatable about the post *f* and is adapted to engage a reduced part or pin *k* of the post *h* by its other end, which is shaped
60 as a jaw or hook. The part *k* has preferably a head *k'*, as shown. The arm *e* has a central nut or screwed part into which fits a screw *l*, having a hand-wheel, which screw engages with and holds, but in such a manner as to be rotatable thereon, a bar *m*, carrying at its ends springs *n n*, adapted to bear
65 on the arms *a a*, respectively.

The upper rollers in their frame normally rest on the lower rollers, and it will be seen
70 that to exert the desired pressure on the material passing between the rollers the hand-wheel of the screw *l* need only be screwed down and all the rollers will be pressed with equal force thereon. To throw back the upper
75 rollers, as indicated in the dotted lines, the cross-bar *e* is turned aside after the screw *l* has been loosened, thus carrying the bar *m* and springs with it, when a clear opening is left between posts *f h*. The lower rollers are
80 driven from a pulley *p* by suitable gear-wheels *o*. One of these rollers has a sprocket-wheel *g*, which by means of a chain *q'* and another sprocket *w'* drives the gluing-disk *w*, one portion of which dips into the glue-
85 trough, while the other projects above the edge of the table *s*, as usual.

Hitherto it has been customary to hold the material in contact with the disk for the purpose of applying glue thereto by passing it
90 between the disk and a wheel, block, or the like, the position of which with respect to the part of the circumference of the wheel projecting above the table could be varied by sliding it along the ledge of the table on
95 which it was carried; but this required some considerable adjustment. The device here employed consists of a curved arm or block *t*, which swings about a point *r* on the table-ledge above the disk *w*, its position being ad-
100 justed by the screw *t'*, which is pivotally attached to it at one end and works in a nut of a bracket *s'* of said table. By this means the adjustment to the desired thickness of material can be readily made.
105

What I claim is—

1. In a cardboard-gluing machine, and in combination, a framework carrying rollers, upper rollers, a frame carrying the latter and hinged to said framework, uprights fixed to
110 the frame of the machine, a cross-bar pivotally carried by one of said uprights, means

for removably securing one end of such cross-bar to the other, a screw carried by such cross-bar, and means intermediate of such screw and said frame for conveying the pressure transmitted by the former to the latter.

2. In a cardboard-gluing machine and in combination a framework carrying rollers, upper rollers, a frame carrying the latter, hinged to said framework, uprights fixed to the frame of the machine, a cross-bar pivotally carried by one of said uprights, and having a hooked end adapted to engage the other and a screw carried by said cross-bar, and means intermediate of such screw and said frame for conveying the pressure transmitted by the former to the latter.

3. In a cardboard-gluing machine and in

combination, a framework carrying rollers, upper rollers, a frame carrying the latter and hinged to said framework, uprights fixed to the frame of the machine, a cross-bar pivotally carried by one of said uprights, means for removably securing one end of such cross-bar to the other, a screw carried by such cross-bar, a bar carried by said screw and springs located between said bar and said frame when the cross-bar is in its pressure position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PHINEAS LAWRENCE.

Witnesses:

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S. G. WHEELER.