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POSITIONING MEANS FOR BOOK GATHERING MACHINES.

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1,290,510.

Patented Jan. 7, 1919.

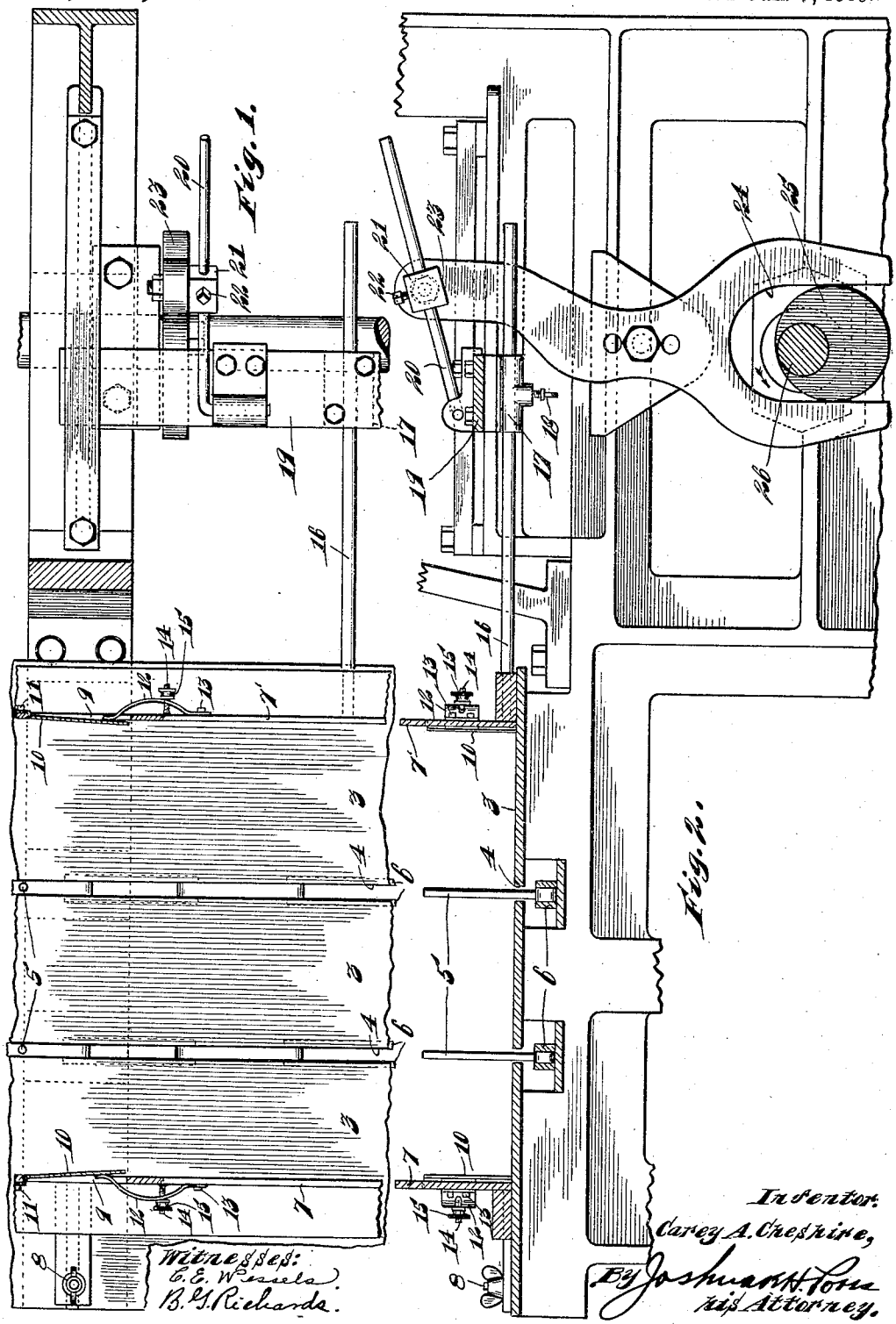


Fig. 1.

Fig. 2.

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# UNITED STATES PATENT OFFICE.

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## POSITIONING MEANS FOR BOOK-GATHERING MACHINES.

1,290,510. Specification of Letters Patent. Patented Jan. 7, 1919.

Application filed April 26, 1915. Serial No. 24,041.

*To all whom it may concern:*

Be it known that I, CAREY A. CHESHIRE, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Positioning Means for Book-Gathering Machines, of which the following is a specification.

My invention relates to improvements in positioning means for book gathering machines, and has for its object the provision of an improved means especially adapted for operatively positioning book signatures longitudinally and laterally as they are gathered, the present application constituting in part a division of my prior application for book gathering and stacking machines, filed February 20, 1914, Serial No. 819,925.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing forming a part of this specification, and in which,

Figure 1 is a partial top plan view of mechanism embodying my invention, and

Fig. 2, an end view of the same.

The preferred form of construction, as illustrated in the drawing, comprises a supporting table 3 having longitudinal parallel slots 4 therein through which contacting pins 5 project upwardly from chain 6 traveling under said slots, as will be readily understood. The arrangement and the cooperating parts (not shown) are such as to deposit piles of book signatures on table 3 in front of pins 5, as will be readily understood and as is more fully set forth in the application referred to above. These articles are pushed along table 3 by the action of pins 5, and it is desirable to position these articles one above the other in registration with each other, as nearly as possible.

To this end I arrange a normally stationary guide 7 along one side of table 3, said guide being rendered adjustable laterally with respect to said table by means of clamping bolts 8, as will be readily understood. The guide 7 is provided with one or more openings 9 therein and a leaf spring 10 is secured at 11 to guide 7 in each of the openings 9, the tension in said spring tending to hold the same outwardly or from projecting inwardly beyond said guide 7. Another leaf spring 12 which is bowed, as shown, is secured at 13 to the outer side of guide 7, the free end of said spring resting loosely against the outer side of spring 10, the tension in spring 12 being also outwardly. A threaded stud 14 is secured to guide 7 and is projected loosely through spring 12 and provided with an adjusting nut 15 by means of which spring 10 may be adjusted to project slightly inwardly beyond the inner face of guide 7, as shown in Fig. 1. A laterally reciprocating guide 7′ similar to guide 7 is arranged on the opposite side of table 3, said guide being equipped with the springs 10 and 12, as shown. Guide 7′ is operated by one or more rods 16 adjustably secured to one or more brackets 17 by means of set screws 18, said brackets 17 being secured to the under side of a laterally reciprocating bar 19, as shown. The bar 19 is adjustably connected by means of one or more links 20 with one or more blocks 21 by means of one or more set screws 22, the blocks 21 being pivotally mounted on the upper end of one or more levers 23. The lower ends of levers 23 are provided with forks 24 embracing one or more eccentrics 25 on driving shaft 26. By this arrangement the guide 7′ will be caused to reciprocate laterally on table 3 and may be adjusted relatively to guide 7 for articles of different widths.

In operation, as the articles are fed or pushed along table 3 by the pins 5, the guide member 7′ is arranged to advance from that side of the table and bring springs 10 in contact with the edges of the articles traveling on table 3. The parts are so adjusted relatively to the width of said articles that this contact will force the opposite edges of the articles against springs 10 in guide 7. This will serve to accurately position the articles laterally and will exert temporary friction on the edges thereof thus tending to straighten and position them against pins 5, as will be readily understood.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and

modifications as come within the scope of the appended claims.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. A book gathering machine comprising a supporting table; means for pushing articles along said table; laterally reciprocating means at one side of said table arranged to contact with the edges of said articles to position the same laterally; a stationary guide at the other side of said table coöperating with said laterally reciprocating means; and yielding contacts on said reciprocating means and said stationary guide arranged to frictionally engage the edges of said articles to position the same longitudinally, substantially as described.

2. A book gathering machine comprising a supporting table; means for pushing articles along said table; adjustable laterally reciprocating means at one side of said table arranged to contact with the edges of said articles to position the same laterally; an adjustable normally stationary guide at the other side of said table coöperating with said laterally reciprocating means; and yielding contacts on said reciprocating means and said stationary guide arranged to frictionally engage the edges of said articles to position the same longitudinally, substantially as described.

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

CAREY A. CHESHIRE.

Witnesses:
JOSHUA R. H. POTTS,
HELEN F. LILLIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."