

2 Sheets—Sheet 1.

No. 567,356.

Patented Sept. 8, 1896.



C. L. Bendixon  
W. H. Tomlinson

*Fig. 2*

**INVENTORS:**

INVENTORS:  
James J. Parker  
and Valbot C. Dexter  
By E. Leass  
their ATTORNEY

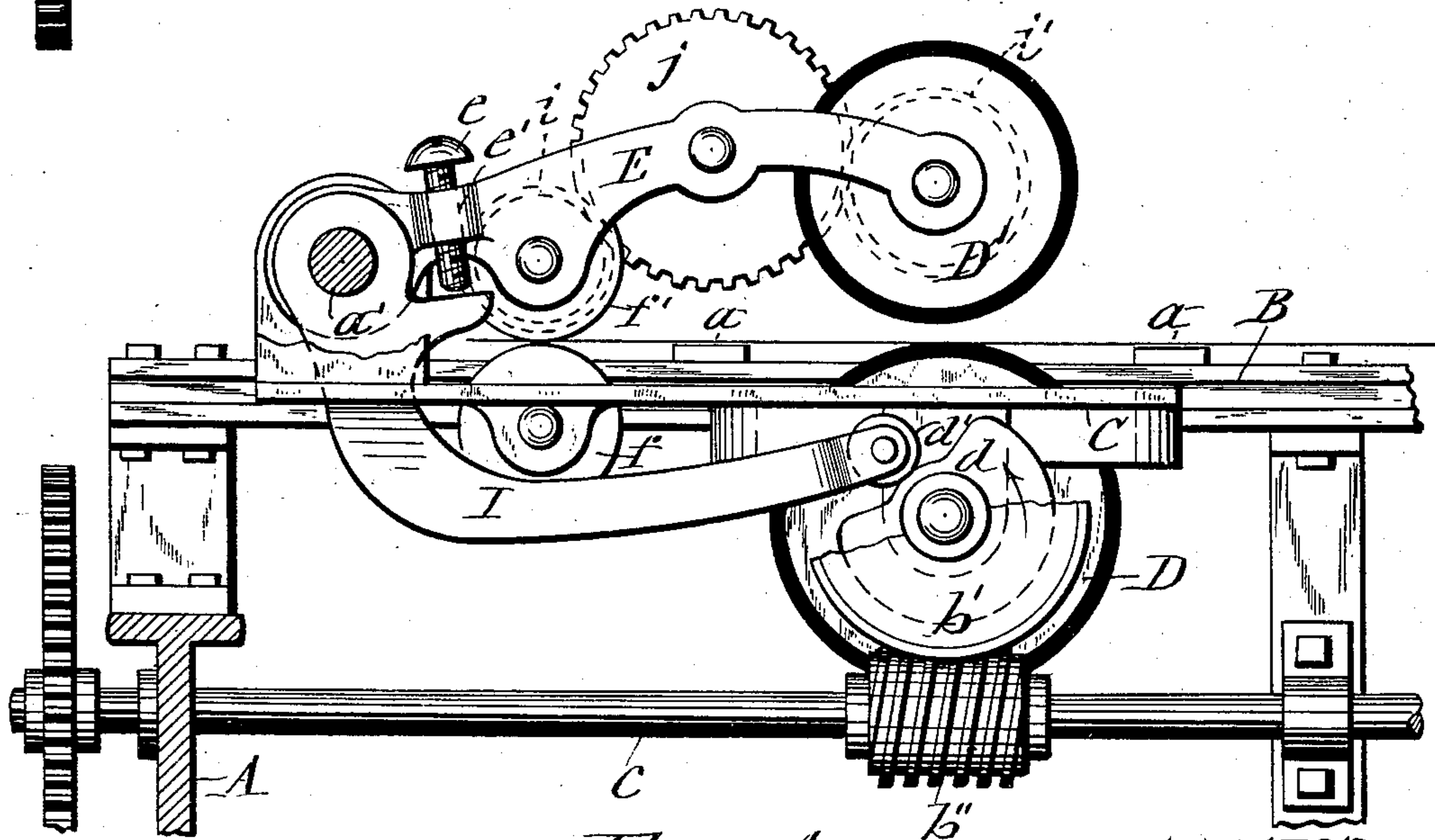
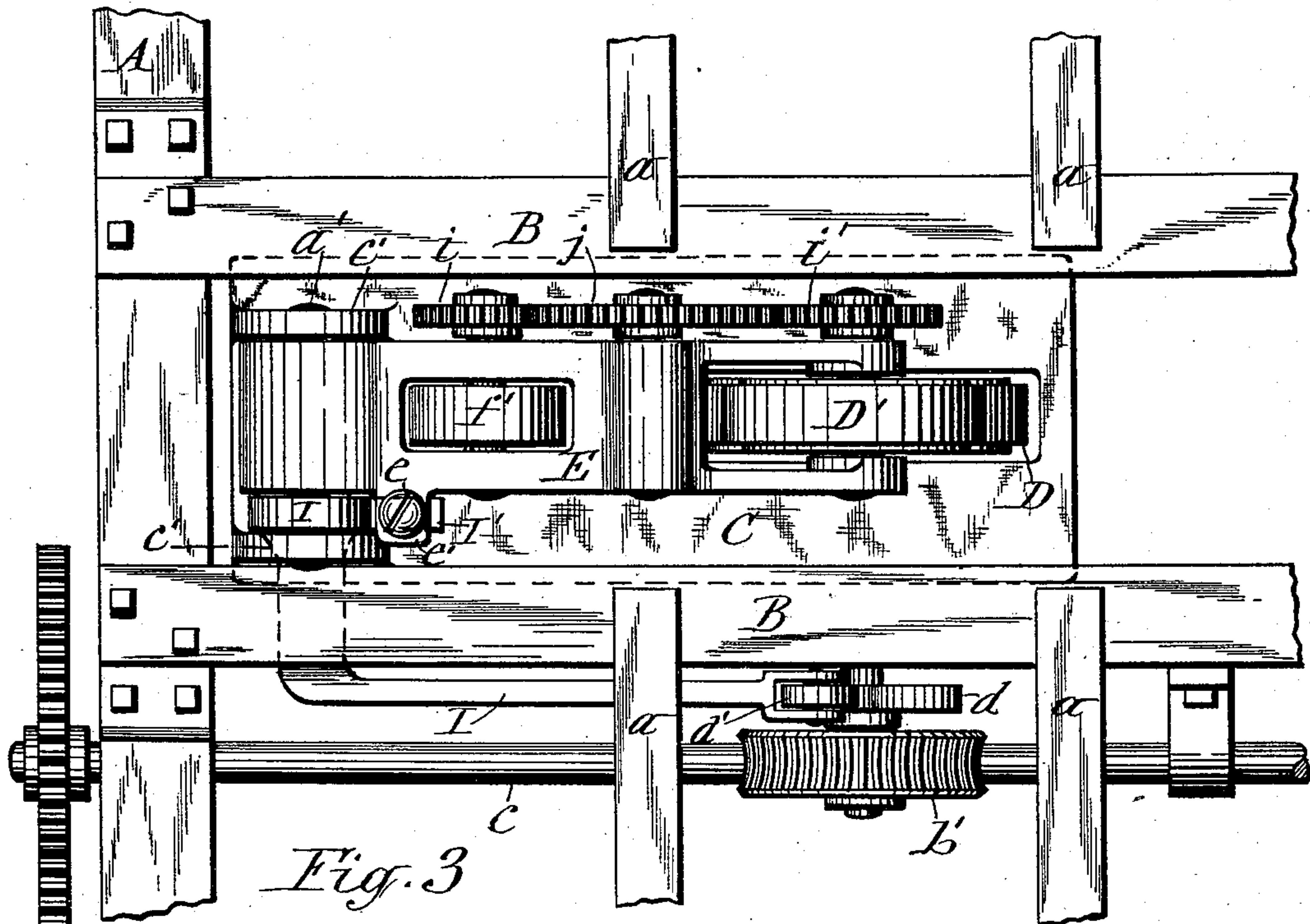
(No Model.)

2 Sheets—Sheet 2.

J. J. PARKER & T. C. DEXTER.  
PAPER REGISTERING INSTRUMENT.

No. 567,356.

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WITNESSES:

C. L. Bendixson  
C. J. Foulmerison

Fig. 4

INVENTORS:

James J. Parker  
Talbot C. Dexter  
By E. Laess  
their ATTORNEY



# UNITED STATES PATENT OFFICE.

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NEW YORK, ASSIGNORS TO THE DEXTER FOLDER COMPANY, OF NEW  
YORK, N. Y.

## PAPER-REGISTERING INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 567,356, dated September 8, 1896.

Application filed December 2, 1895. Serial No. 570,779. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES J. PARKER, of  
Fulton, in the county of Oswego, and TALBOT  
C. DEXTER, of Pearl River, in the county of  
5 Rockland, State of New York, have invented  
new and useful Improvements in Paper-Reg-  
istering Instruments, of which the following,  
taken in connection with the accompanying  
drawings, is a full, clear, and exact descrip-  
10 tion.

This invention relates to the class of paper-  
registering instruments in which a revolving  
roller is arranged immediately under the  
plane of the paper to be registered to receive  
15 a frictional hold on said paper, so as to shift  
the same to its registering position by the  
assistance of a roller over the paper and  
pressing the same into intimate contact with  
the subjacent roller.

20 The chief object of this invention is to sim-  
plify the construction of the registering in-  
strument without impairing its efficiency;  
and to that end the invention consists in the  
novel construction and combination of the  
25 constituent parts of the instrument as here-  
inafter described, and set forth in the claims.

In the annexed drawings, Figure 1 is a side  
elevation of a paper-registering instrument  
embodying our invention and showing the  
30 same by full lines in position for receiving  
the paper to be registered and in dotted lines  
in position for shifting the paper to its reg-  
istering position. Fig. 2 is a side elevation  
showing said instrument in its position when  
35 the paper has arrived at its registering posi-  
tion. Fig. 3 is a plan view of said instru-  
ment, and Fig. 4 is a side view of a modifica-  
tion of our invention.

Similar letters of reference indicate corre-  
40 sponding parts.

A represents a portion of the main sup-  
porting-frame of the machine, on which the  
registering instrument is employed. The  
character of said machine is immaterial to  
45 our present invention, and may be either a  
paper-folding machine or a paper-feeding ma-  
chine.

*a a* designate bars upon which the paper  
is supported in its passage to its requisite

position to be operated on by the aforesaid 50  
machine.

To the top of the frame A are rigidly se-  
cured the parallel horizontal guides B B, upon  
which rides the supporting-bracket C of the  
registering instrument. In hangers C' C' on 55  
the under side of the bracket C is journaled  
the shaft *b*, to which is fastened the paper-  
shifting roller D, which is preferably pro-  
vided with a rubber face on its periphery and  
arranged with the top of its periphery im- 60  
mediately under the plane of the bars *a a* or  
plane of the paper to be registered. Said  
roller receives rotary motion by means of a  
gear *b'*, attached to the shaft of said roller  
and meshing with a worm-gear *b''* on a shaft 65  
*c*, which derives rotary motion from the ac-  
tuating mechanism of the machine to which  
the registering instrument is connected.  
The means for transmitting motion to the  
shaft *c* necessarily varies with the character 70  
of the aforesaid machine and readily suggest  
themselves to a mechanic familiar with such  
classes of machines.

In bearings *c' c'* on the top of the bracket  
C is pivoted the vertically-movable arm E, to 75  
the free end of which is pivoted the paper-  
depressing roller D', which intermittently  
presses the paper into intimate contact with  
the revolving lower roller D, whereby the  
paper is shifted to its registering position. 80  
Thus far the instrument is organized similar  
to the registering devices shown and de-  
scribed in the United States Letters Patent  
No. 528,657, granted to Talbot C. Dexter on  
the 5th day of November, 1894. 85

Our present improvements consist in the  
mechanisms for automatically lifting the pa-  
per-depressing roller D' at the proper times,  
first, to allow the paper to enter between  
the rollers, and, secondly, to release the pa- 90  
per after it has been moved to its registering  
position. To produce said actions of the  
paper-depressing roller in a simple and reli-  
able manner, we employ mechanism for  
transmitting motion from the shaft of the 95  
roller D to the arm E to intermittently lift  
the same. For this purpose we prefer to at-  
tach to the shaft of the paper-shifting roller



D a cam  $d$  and fulcrum on the pivot-pin  $a'$  of the arm E the lever I, to the free end of which is pivoted a roller  $d'$ , by which said lever bears on the periphery of the cam  $d$  and is thus intermittently rocked. Over the said lever, preferably near the fulcrum thereof, is a suitable bearing on the arm E, so as to cause the lever to lift said arm by the upward movement imparted to the lever by the cam  $d$ . In order to permit the said lifting of the arm to be regulated, we employ an adjustable bearing on said arm, preferably of the form of a set-screw  $e$ , adjustably connected to a screw-threaded eye  $e'$ , formed on the arm, which screw can be turned to cause it to project to a greater or less distance beneath the arm and engage the lug  $I'$ , formed on the lever I. The said lever I lifts the roller  $D'$  to the position shown by full lines in Fig. 1 of the drawings, in which position it is held during the feeding of the paper to its requisite position for being registered in the machine. The cam  $d$  is so shaped as to allow the arm E to descend and cause the roller  $D'$  to press upon the paper as soon as it has arrived at its position for being registered. The frictional hold of the lower roller D then shifts the paper to its registering position. To arrest said movement of the paper as soon as registered and release the registered paper, so as to allow it to be drawn from between the two rollers D  $D'$ , we employ a suitable pry actuated by the shifting paper and lifting the arm E. For this purpose we prefer to pivot a supplemental roller  $f$  to the bracket C or other suitable stationary support back of the paper-shifting roller D, the top of which supplemental roller is in the same plane with that of the roller D. Directly over this supplemental roller is a companion supplemental roller  $f'$ , pivoted to the arm E, and in front of the two rollers  $f f'$  is a finger  $g$ , pivoted to the bracket C and having its free end in the path of the shifting paper and provided with a tongue  $g'$ , projecting from it toward the bite of said rollers. A spring  $h$  serves to draw the finger from the rollers, and a stop  $h'$  limits said withdrawal. During the movement imparted to the paper by the roller D the edge of said paper is forced against the free end of the finger  $g$ , which is thereby tilted on its pivot and caused to push the tongue  $g'$  into the bite of the rollers  $f f'$ , so as to lift the arm E, as represented in Fig. 2 of the drawings. To facilitate the entrance of said tongue between the rollers, we attach to the shafts of the roller  $f'$  and roller  $D'$ , respectively, the gears  $i$  and  $i'$ , and pivot an intermediate gear  $j$  to the side of the arm E. By means of said gears motion is transmitted from the roller  $D'$  to the roller  $f'$  during the shifting of the paper to the finger  $g$ .

The pinching of the revolving roller  $f'$  upon the end of the tongue  $g'$  draws the latter between the two rollers  $f f'$  sufficiently to lift the arm E, which then immediately deprives the

roller  $D'$  of further movement, and consequently the motion of the roller  $f'$  is also arrested. The tongue  $g'$  is retained between the rollers while the registered paper is removed from the registering instrument. The cam  $d$  next lifts the arm E still higher by means of the lever I and thereby releases the tongue  $g'$  from the bite of the rollers  $f f'$  and allows said tongue to be restored to its normal position by force of the spring  $h$ . We do not, however, limit ourselves to the use of the mechanical finger  $g$ , inasmuch as it can be dispensed with in case the paper is of sufficient thickness to lift the arm E to the requisite height by allowing the edge of the paper to enter between the rollers  $f f'$ , as represented in Fig. 4 of the drawings.

What we claim as our invention is—

1. A paper-registering instrument comprising a roller disposed to shift the paper toward its registering position, a depressor movable to and from said roller to temporarily press the paper into frictional contact therewith and thereby shift the paper, and a pry actuated by the shifting paper and lifting the depressor from the roller and thereby arrest the movement of the paper.

2. In combination with the paper-shifting roller and a paper-depressor over said roller, a vertically-movable arm carrying said depressor, and a pry actuated by the shifting paper and operating said arm.

3. In combination with the paper-shifting roller, paper-depressor over said roller, and vertically-movable arm carrying said depressor, a supplemental roller connected to a stationary support back of the paper-shifting roller and disposed with its top in the same plane with that of the paper-shifting roller, a companion supplemental roller pivoted to the aforesaid arm, and a pry actuated by the shifting paper and entering between the supplemental rollers and thereby lifting the aforesaid arm.

4. In combination with the paper-shifting roller, vertically-movable arm and paper-depressing roller pivoted to said arm, a supplemental roller pivoted to a stationary support back of the paper-shifting roller and disposed with its top in the same plane with the top of said shifting-roller, a companion supplemental roller pivoted to the aforesaid arm, and geared to partake motion from the aforesaid paper-depressing roller, and a pry actuated by the shifting paper and entering between the supplemental rollers and thereby lifting the arm as set forth.

5. In combination with the paper-shifting roller, vertically-movable arm, and paper-depressing roller pivoted to said arm, a supplemental roller pivoted to a stationary support back of the paper-shifting roller and disposed with its top in the same plane with that of the said shifting-roller, a companion supplemental roller pivoted to the aforesaid arm, gears transmitting motion from the paper-depressing roller to the companion supplemental



roller, a pry actuated by the shifting paper and entering between the supplemental rollers, a cam attached to the shaft of the paper-shifting roller, and a lever actuated by said cam and lifting the aforesaid arm, substantially as set forth.

6. In combination with the paper-shifting roller, vertically-movable arm and paper-depressing roller pivoted to said arm, a supplemental roller pivoted to a stationary support back of the said paper-shifting roller, a companion supplemental roller pivoted to the aforesaid arm, a cam on the shaft of the paper-shifting roller, a lever actuated by said cam and lifting the aforesaid arm, a finger pivoted

to the supporting-bracket of the paper-shifting roller and having its free end in the path of the shifting paper, a tongue projecting from said end of the finger toward the bite of the supplemental rollers, and a spring drawing the said finger from the latter rollers, substantially as shown and described.

JAMES J. PARKER.

TALBOT C. DEXTER.

Witnesses for James J. Parker:

J. J. LAASS,

M. A. LEYDEN.

Witnesses for Talbot C. Dexter:

GEORGE C. MOON,

M. E. MORRISON.