

No. 677,222.

Patented June 25, 1901.

J. Y. JOHNSTON.

PAPER HOLDING MECHANISM FOR PRINTING OR LIKE PRESSES.

(Application filed Jan. 23, 1900.)

(No Model.)

3 Sheets—Sheet 1.

FIG. 1.

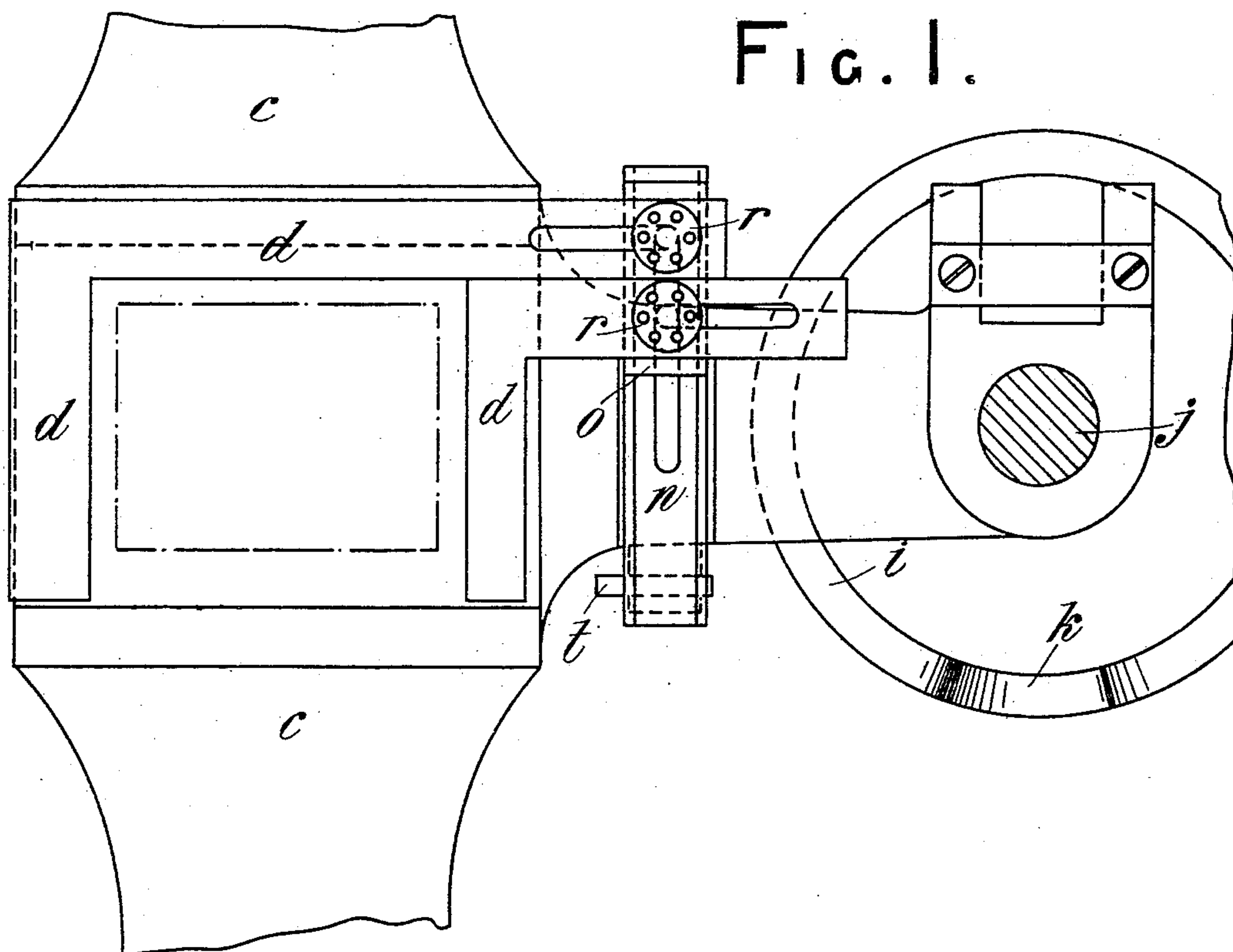
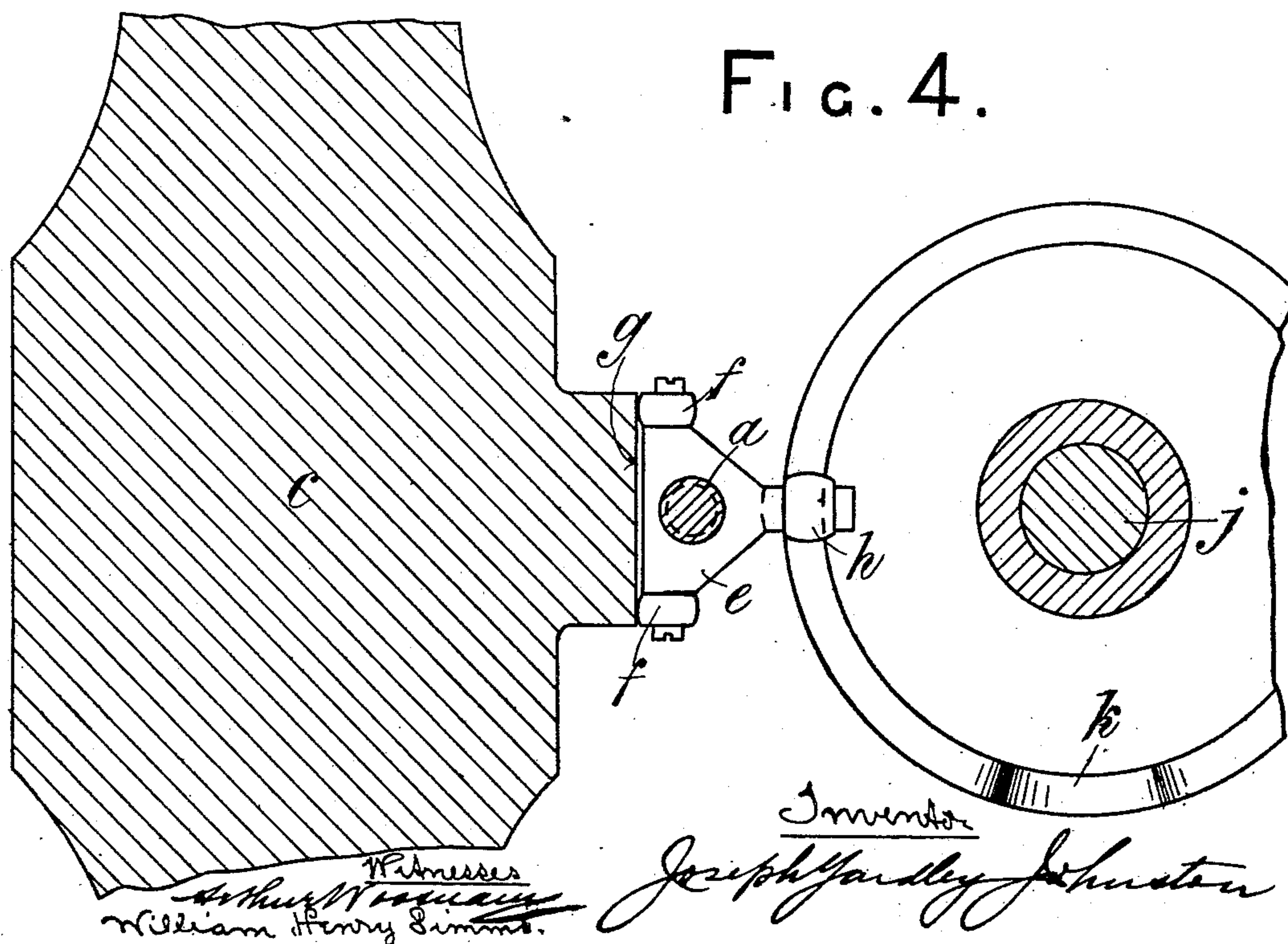


FIG. 4.



No. 677,222.

Patented June 25, 1901.

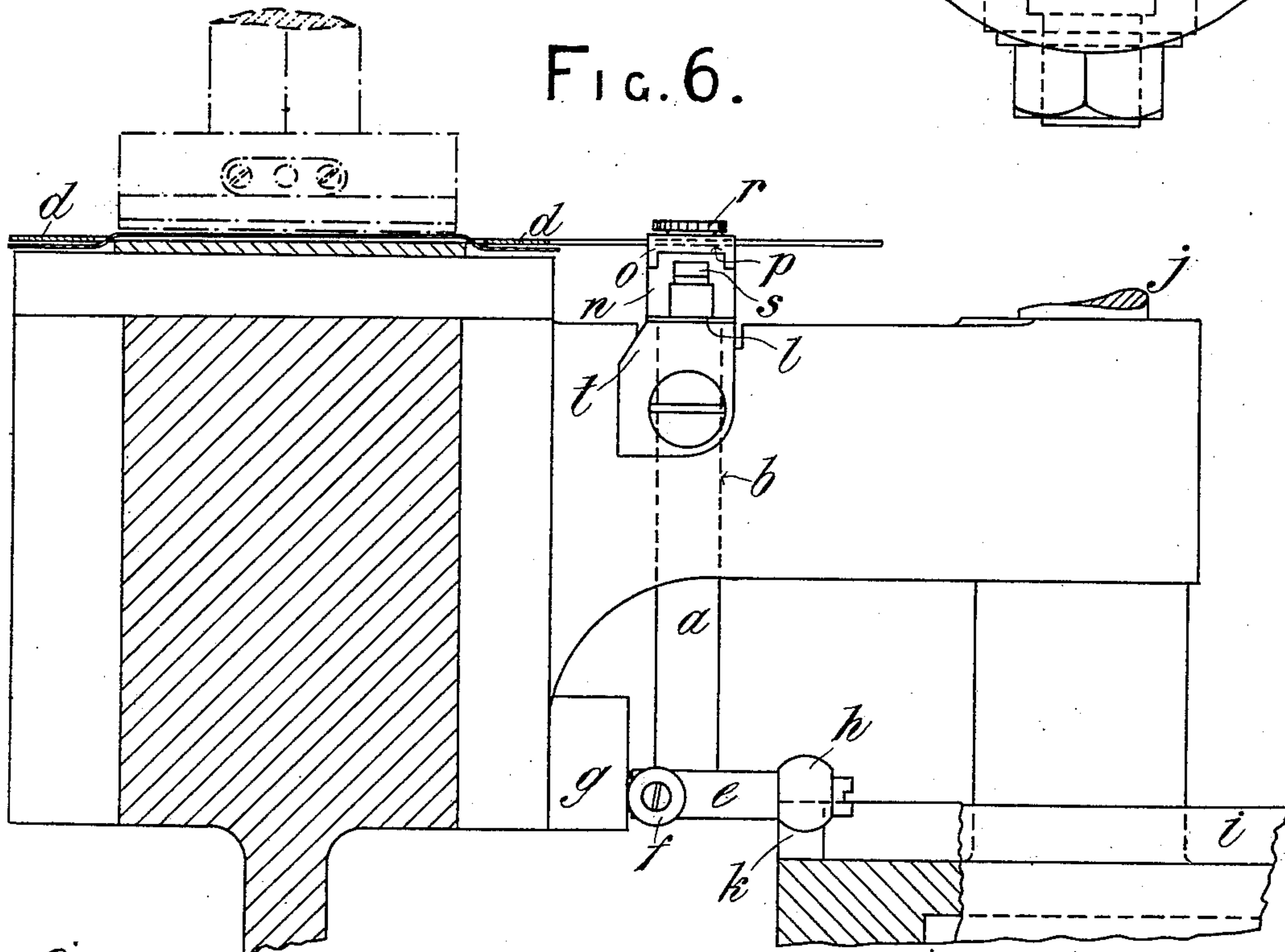
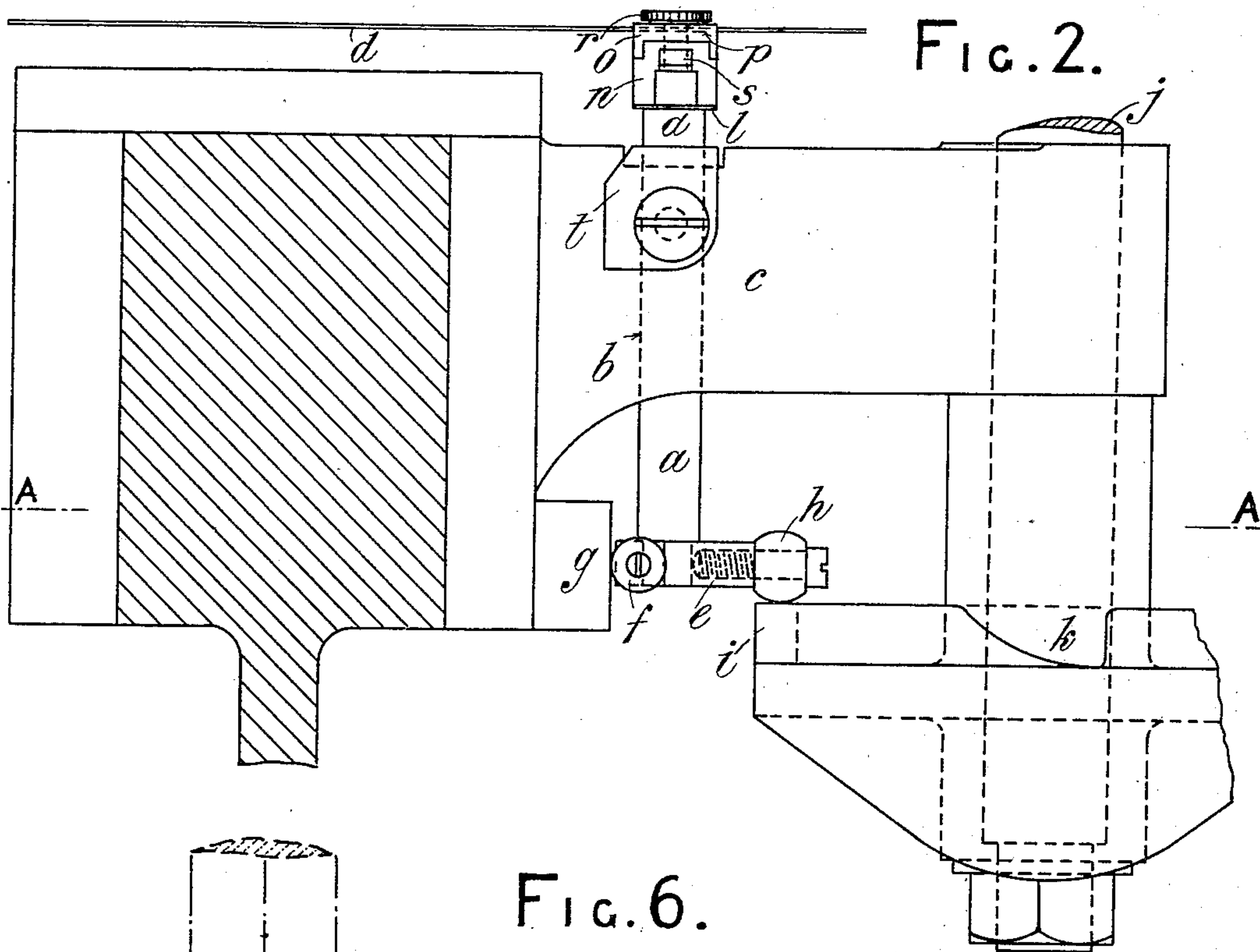
J. Y. JOHNSTON.

PAPER HOLDING MECHANISM FOR PRINTING OR LIKE PRESSES.

(No Model.)

(Application filed Jan. 23, 1900.)

3 Sheets—Sheet 2.



Witnesses
Arthur W. ...
William Henry ...

Inventor
Joseph Y. Johnston

No. 677,222.

Patented June 25, 1901.

J. Y. JOHNSTON.

PAPER HOLDING MECHANISM FOR PRINTING OR LIKE PRESSES.

(Application filed Jan. 23, 1900.)

(No Model.)

3 Sheets—Sheet 3.

Fig. 5.

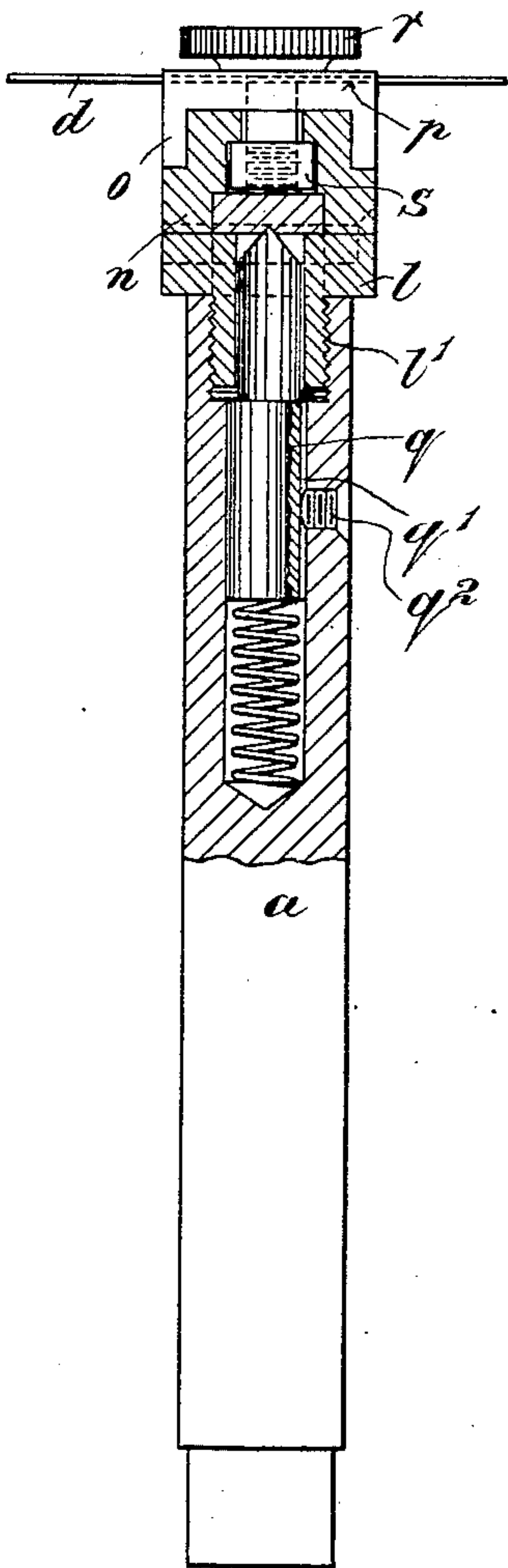
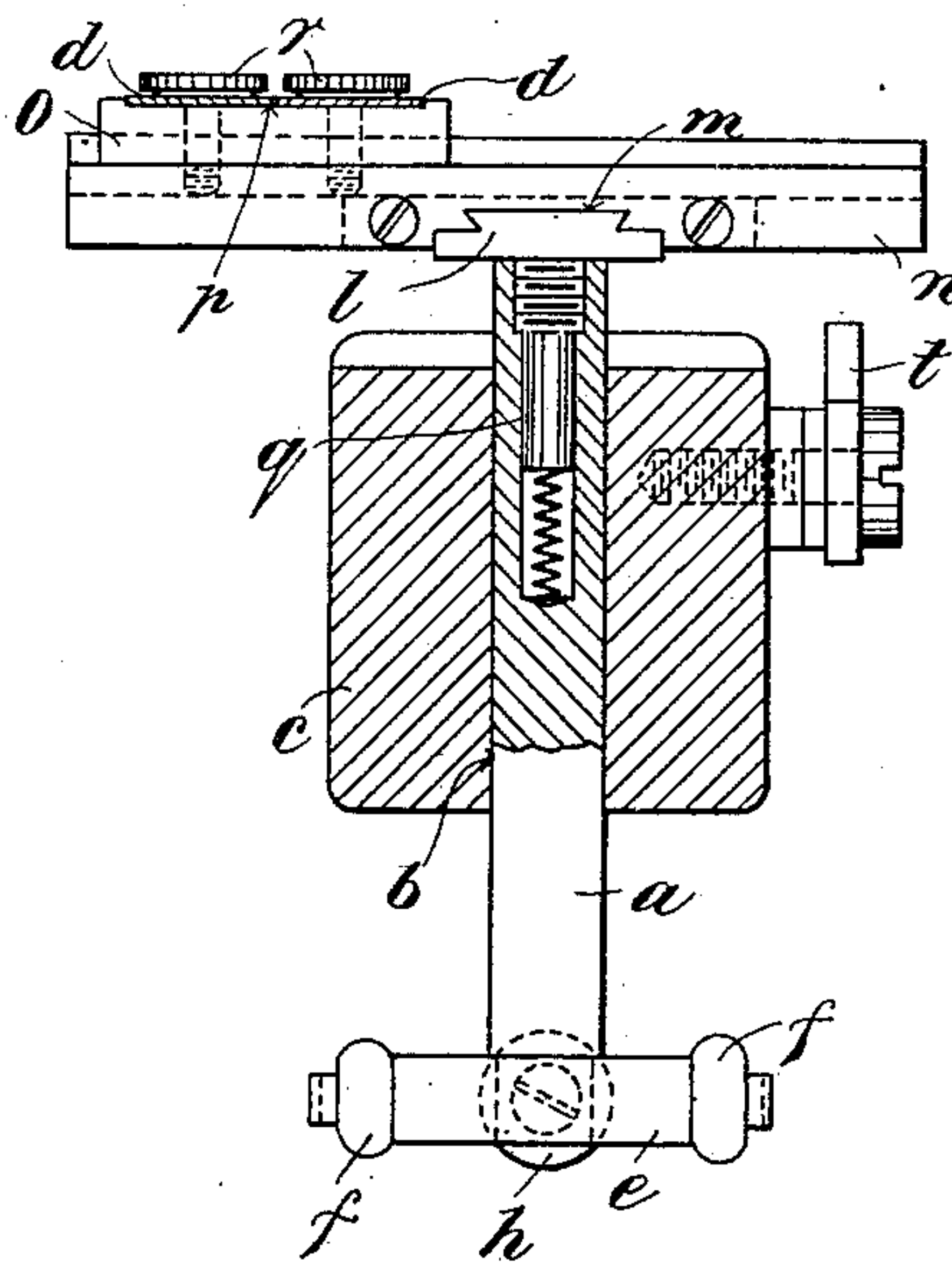


Fig. 3.



Witnesses:
A. H. McArthur.
By [Signature]

Inventor,
Joseph S. Johnston
By [Signature]

UNITED STATES PATENT OFFICE.

JOSEPH YARDLEY JOHNSTON, OF LONDON, ENGLAND, ASSIGNOR TO THE
JOHNSTON NORTH AMERICAN PATENTS COMPANY, LIMITED, OF SAME
PLACE.

PAPER-HOLDING MECHANISM FOR PRINTING OR LIKE PRESSES.

SPECIFICATION forming part of Letters Patent No. 677,222, dated June 25, 1901.

Application filed January 23, 1900. Serial No. 2,452. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH YARDLEY JOHNSTON, a citizen of the United States of America, residing at the city of London, England, have
5 invented Improvements in Paper-Holding Mechanism for Printing or Like Presses, of which the following is a specification.

This invention has reference to improvements in means for holding paper or other
10 material while being operated upon in printing, embossing, or printing and embossing presses, whereby the paper or other material is prevented from being lifted and carried away by the die. The holding device or lay-over
15 (hereinafter referred to as a "lay-over") is automatically operated, so that after the paper or other material (hereinafter referred to as "paper") to receive the impression is laid on the counter, force, male plate, or other de-
20 vice or material which is to resist the impression-blow and just before the die descends the said lay-over drops on the paper around the resisting device and is not raised until after the die has been lifted and has
25 started to move away, thereby insuring proper registration of the paper and preventing it being carried away during the operation of the press.

Referring to the accompanying drawings,
30 Figures 1, 2, and 3 are respectively a plan, a side elevation, and a front sectional elevation of my lay-over. Fig. 4 is a section on the line A A, Fig. 2. Fig. 5 is a detail sectional view to an enlarged scale; and Fig. 6 is a similar
35 view to Fig. 2, showing the paper held down upon a counter or other device which is to resist the impression-blow.

The lay-over comprises a pin *a*, sliding vertically in a hole *b* in the frame *c* of the press
40 and carrying lay-over plates *d* at its top, while at the bottom is fitted a plate *e*, in which are mounted two rollers *f*, that bear against a face *g* on the frame *c*, and so prevent the pin *a* turning. Another roller *h* is also se-
45 cured to the plate *e* and rests on a cam-ring *i*, fixed to a rotary vertical shaft *j*. A depression *k* in the cam-ring *i* permits the pin *a* to drop at the right moment, the plates *d* then holding the paper. After the impression-
50 blow has been struck the inclined side of the

depression *k* moves under the roller *h*, and so raises the pin *a* and its plates *d*, which are kept raised until the depression *k* again comes under the roller *h*.

The pin *a* has screwed into its upper end
55 the hollow shaft *l* of a dovetailed head *l* of gradually-decreasing width, and a corresponding recess *m* is formed in the under side of a bar *n*, on which is mounted a sliding carriage
60 *o* in a transverse groove *p*, on which the plates *d* rest. The bar *n* when in position on the dovetailed head *l*, carried by the pin *a*, is held by a chisel-headed spring-bolt *q*, which is lo-
65 cated in a hollow part of the pin *a* and passes through the hollow shank *l*, as shown in Fig. 5, said bolt engaging in a notch in the bar *n*
in such a way as to prevent accidental dis-
lodgment of the bar, but so as to yield suffi-
ciently readily to allow the bar to be detached
by hand. The bolt *q* is formed with a groove
70 *q'*, with which a set-screw *q²* engages, so as to prevent the bolt *q* turning in the hollow pin *a*.

The plates *d*, which are of L shape, are
75 slotted, and each is fixed in position by a set-screw *r* passing through it, said screws extending through holes in the carriage *o* and through a slot in the bar *n* into tapped holes
80 in a sliding strip *s*, the arrangement being such that by slacking the set-screws the plates
d may be so adjusted that they encircle the
counter on three or more sides and rest upon
the paper which is to receive the impression,
as shown in Fig. 6, and so as to hold the pa-
85 per down around the counter slightly below
its active surface, thus keeping the paper out of contact with the edges of the die. The
plates *d* being slotted can be moved trans-
versely on the bar *n*, and the plate-carriage
90 *o* being movable longitudinally along the said
bar the plates can be readily adjusted to suit various dies. An adjustable stop *t* may be
provided on the press to regulate the drop of
the lay-over according to the thickness of
counter employed.

95 Having now particularly described and as-
certained the nature of the said invention and
in what manner the same is to be performed,
I declare that what I claim is—

1. A lay-over device comprising a support 100

for the paper, fingers adapted to rest upon the paper and depress it around said support, means for supporting, and for moving the said fingers toward and from the paper-
5 support at the required times and parallel therewith, as set forth.

2. A lay-over device comprising a support for the paper, fingers adapted to rest upon the paper and depress it around said support,
10 a pin capable of being reciprocated and to which said fingers are attached, means for reciprocally moving said pin and attached parts at the required times, as set forth.

3. A lay-over device comprising means for
15 supporting paper, fingers adapted to rest upon the paper, a vertically-reciprocating pin to which said fingers are attached guide-rollers carried by said pin, a vertical face against which said rollers bear and means for recip-
20 rocally moving said pin and attached parts at the required times, as set forth.

4. A lay-over device comprising a support for the paper, fingers adapted to rest upon the paper and depress it around said support,
25 a pin capable of being reciprocated, means for detachably connecting said fingers thereto, means for guiding said pin and attached parts and means for reciprocating said pin at the required times, as set forth.

30 5. A lay-over device comprising a support for the paper, fingers adapted to rest upon the paper and depress it around said support, means for reciprocating at the required times, the said fingers toward and from the said sup-
35 porting means, as set forth.

6. A lay-over device comprising fingers
40 adapted to rest upon the paper, a vertically-movable pin, a cross-bar detachably fitted to its upper end, a carriage which supports the fingers and which is mounted so as to be capable of sliding on said cross-bar and means for raising and lowering the pin and its at-
tached parts at the required times, as set forth.

7. A lay-over device comprising a support 45 for the paper, fingers adapted to rest upon the paper and depress it around said support, a longitudinally-movable pin to which said fingers are attached, and a cam whereby recipro-
50 cation of said pin and fingers is effected, as set forth.

8. A lay-over device comprising slotted fin-
55 gers adapted to rest upon the paper, a slotted cross-bar, means for detachably securing said cross-bar to said pin, a carriage adapted to slide on said cross-bar and formed with holes,
60 a clamping-strip formed with tapped holes, and set-screws adapted to pass through said fingers, carriage and cross-bar into the clamp-
ing-strip, as set forth.

9. A lay-over device comprising fingers
65 adapted to rest upon the paper, a vertically-movable pin to which said fingers are attached, rollers carried by said pin, a vertical face against which said rollers bear, a cam-roller
70 carried by said pin and a rotary cam bearing against said roller, as set forth.

10. A lay-over device comprising fingers
75 adapted to rest upon the paper, a longitudinally-movable pin with dovetailed head, a cross-bar to which said fingers are secured and formed with a transverse recess fitting
80 said head, and a spring-bolt carried by said pin and adapted to engage with said cross-bar, as set forth.

11. A lay-over device comprising fingers
85 adapted to rest upon the paper means for supporting, for guiding and for raising and lowering at the required times the said fingers, and an adjustable stop for limiting the down-
ward movement of the said fingers, as set forth.

Signed at 22 Bride Lane, London, England,
the 12th day of January, 1900.

JOSEPH YARDLEY JOINSTON.

Witnesses:

WILLIAM B. CHILD,
ARTHUR WOOSNAM.