

No. 684,463.

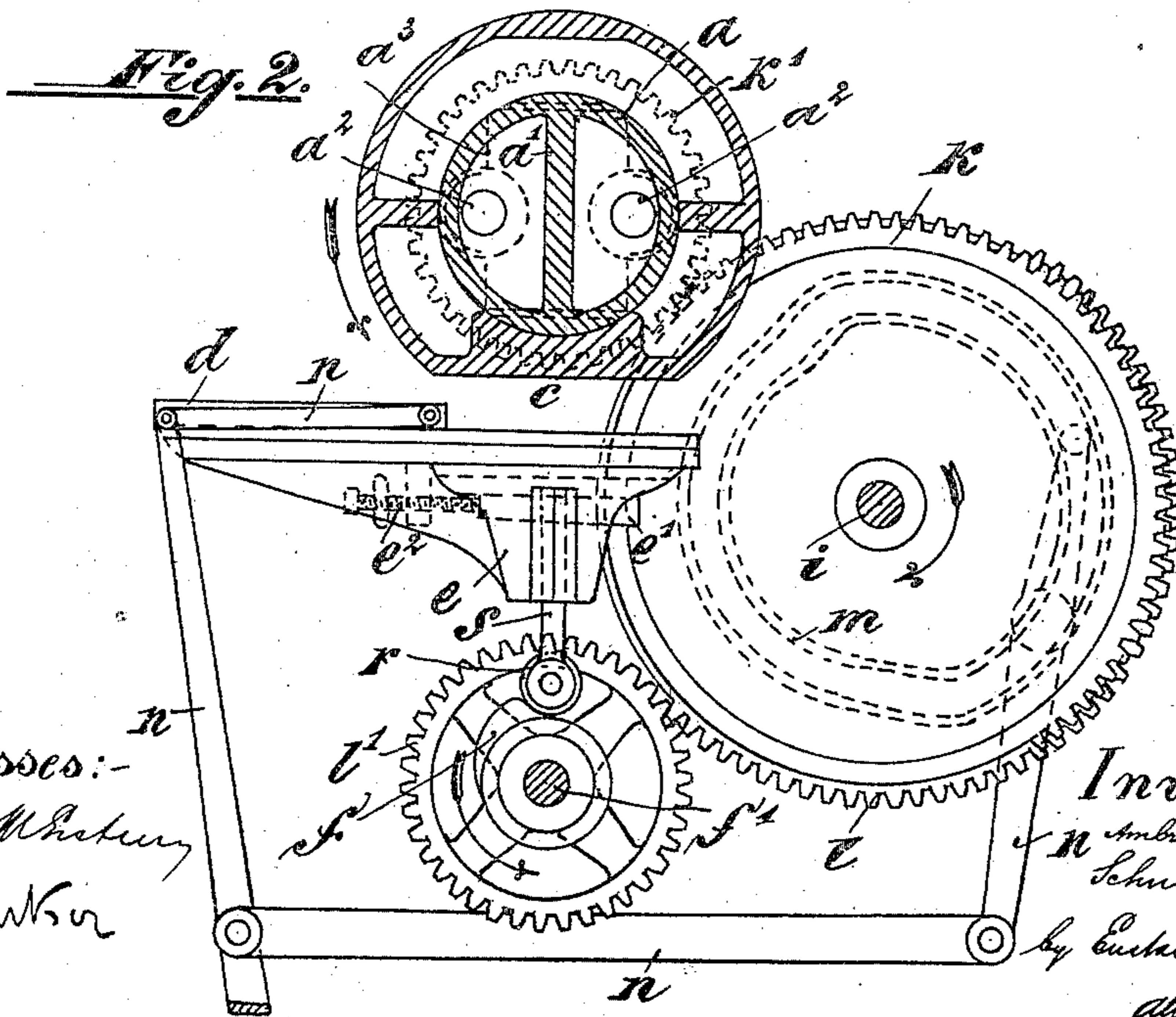
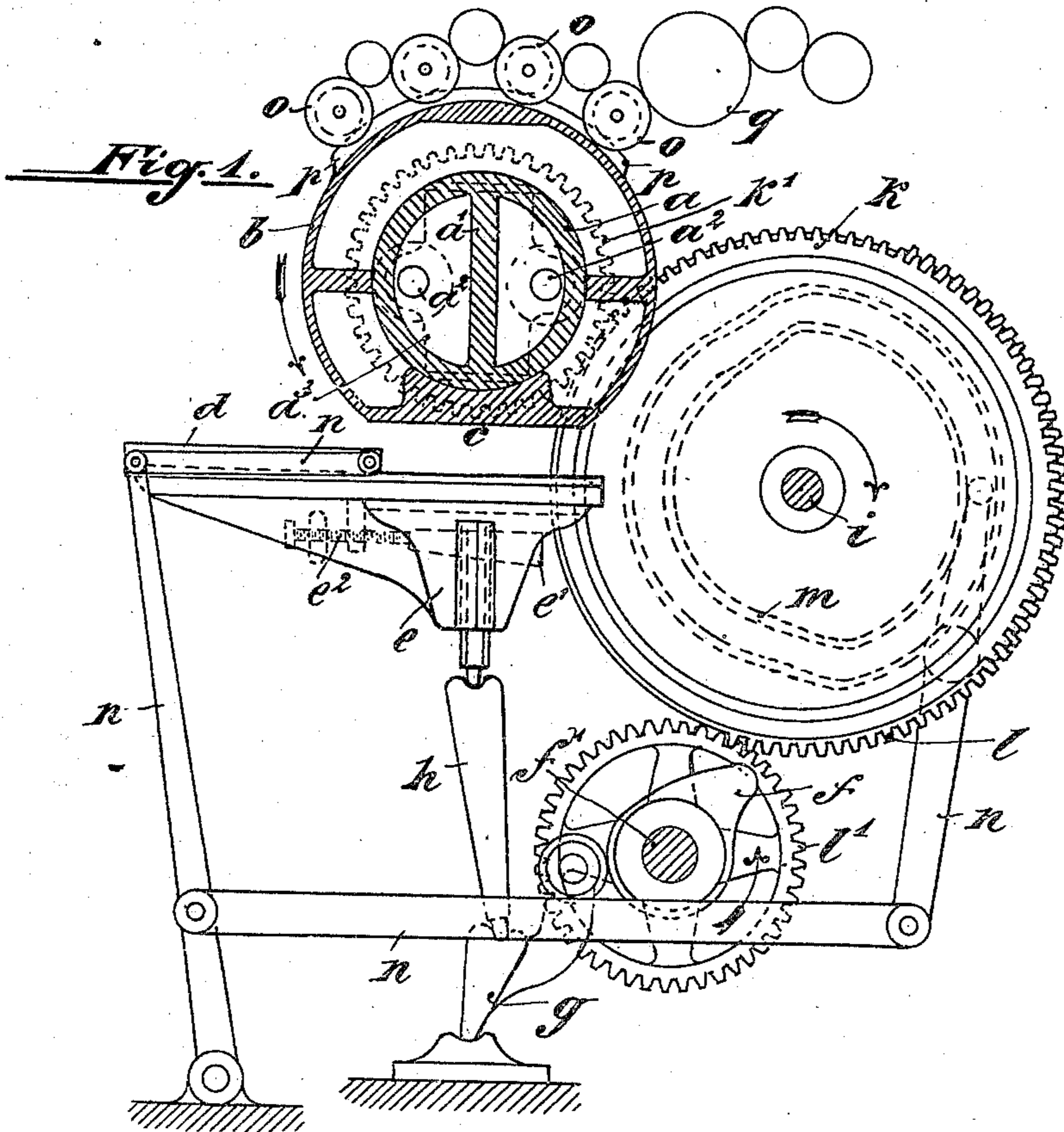
A. H. SCHUMANN.  
PLATEN PRESS.

Patented Oct. 15, 1901.

(No Model.)

(Application filed Nov. 5, 1900.)

2 Sheets—Sheet 1.



Witnesses:-  
*Signatures*  
B. Munkor

Inventor:-

*Signature*  
Schumann  
by *Signature*  
att'y.

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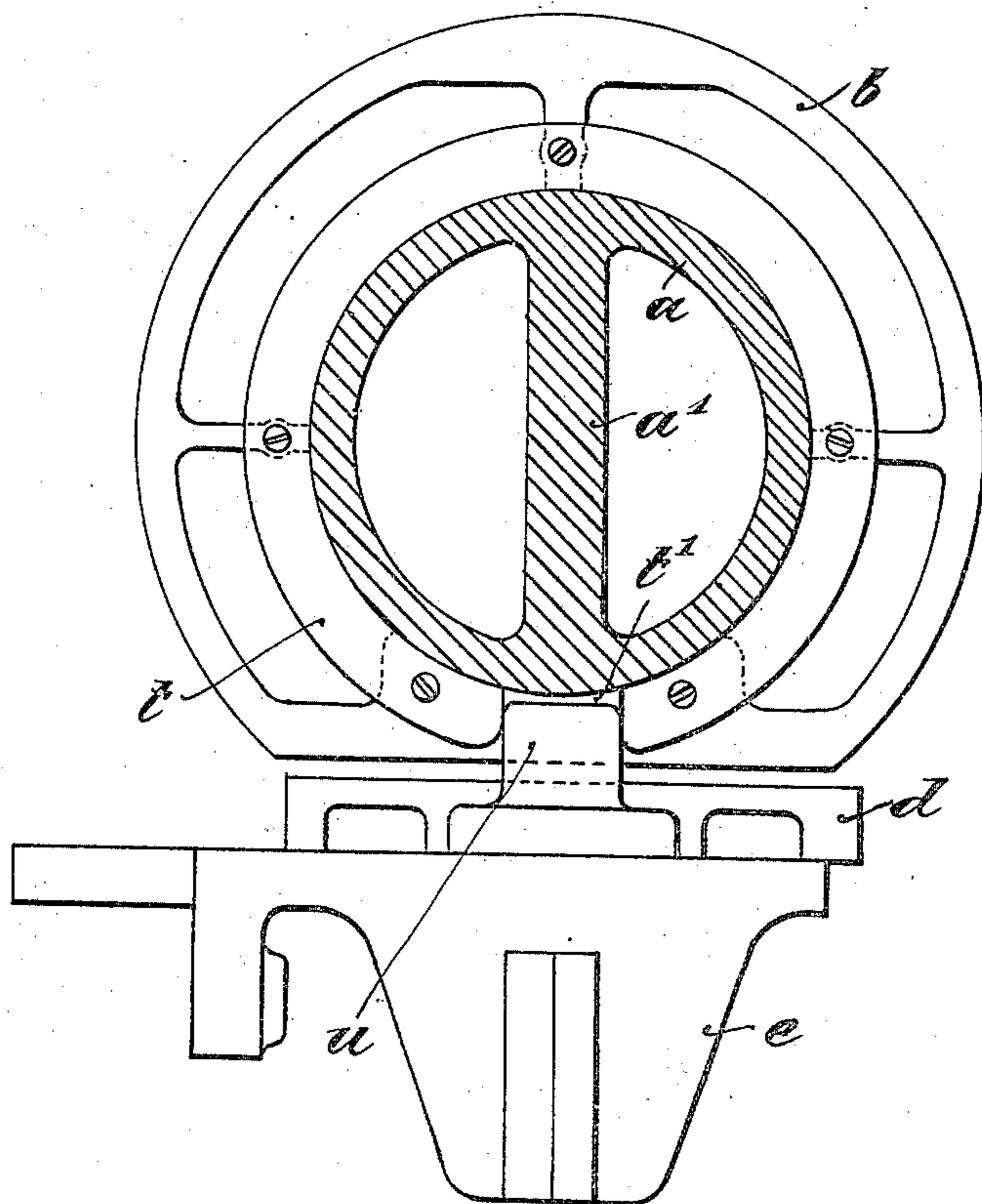
Patented Oct. 15, 1901.

(Application filed Nov. 5, 1900.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 3.



Witnesses:-

*K. H. Schumann*  
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Inventor:-

*Ambrosius Hugo Schumann*  
*by E. H. Schumann*  
*att'y.*

# UNITED STATES PATENT OFFICE.

AMBROSIUS HUGO SCHUMANN, OF LEIPSIC, GERMANY.

## PLATEN-PRESS.

SPECIFICATION forming part of Letters Patent No. 684,463, dated October 15, 1901.

Application filed November 5, 1900. Serial No. 35,588. (No model.)

*To all whom it may concern:*

Be it known that I, AMBROSIUS HUGO SCHUMANN, a subject of the Emperor of Germany, residing at Leipsic, Saxony, Germany, have  
5 invented certain new and useful Improvements in Platen-Presses, of which the following is a full, clear, and exact description.

The present invention relates to platen-presses; and it consists of the details of construction hereinafter set forth, and particularly pointed out in the claims.

In order to render the present specification easily intelligible, reference is had to the accompanying drawings, in which similar letters of reference denote similar parts throughout the several views.

Figure 1 is a cross-sectional elevation of the improved press; Fig. 2, a similar elevation of a modified form of the press; and Fig. 3, a  
20 similar section of a part of the press, drawn to a larger scale and showing means for arresting the printing-plate in the proper position.

The cylindrical body *b* is provided with a  
25 flattened surface *c*, containing the type and having inwardly-extending ribs, by means of which it is guided on the stationary cylinder *a*, on which it rotates. This cylinder *a* has a vertical rib or partition *a'* to strengthen it and is provided with openings *a<sup>2</sup>*, serving as  
30 inlet and outlet for the steam-heating. The said cylinder *a* is further provided with projections *a<sup>3</sup>* at its ends, by means of which it is attached to the frame of the press (not shown) in any suitable manner. The ink-  
35 ing-rolls *o* rotate on the body *b*, and the latter is provided with ledges *p* at either side or end of the same, which when the printing-surface is in position to print lift the ink-rolls off the cylindrical surface of *b* and raise  
40 them up against the ink-feed roll *q*. The platen *e* is suitably guided in any known manner and is moved vertically up and down by means of the link *h* and toggle-lever *g*,  
45 having a roll actuated by the cam *f*, mounted on a shaft in the lower part of the machine-frame. The platen *e* may be adjusted in a vertical direction to suit the thickness of the material being printed by means of a  
50 wedge *e'*, adjustable in the frame by the screw *e<sup>2</sup>*.

The body *b* and the shaft *f'* of the cam *f*

are alternately rotated by means of two cog-segments *k* and *l*, the former engaging a cog-wheel *k'* of the part *b* and the latter a gear *l'*  
55 on the shaft *f'*. As will be seen from the drawings, the body *b* is rotated by the engagement of the cog-segment *k* with cog-wheel *k'* while the platen is stationary, and, vice versa, when the platen is raised by the  
60 engagement of the cog-wheel *l* with the gear *l'* the body *b* is stationary, the segment *k* and gear *k'* being out of engagement at this period.

The table *d* is mounted to slide on the platen  
65 *e* and is moved backward and forward under the press *c* by means of the lever mechanism *n n*, operated by the cam-disk *m*, mounted on the shaft *i*.

The device operates in the following manner: Assuming the parts to be in the position  
70 shown at Fig. 1 and that a sheet has just been printed, the inking-rolls *o* will be held up against the feed-roll *q* until the ledge *p* has passed from under the bearing-surfaces of  
75 the same, when they will have received enough ink from *q* and will distribute the same while they are rolling over the cylindrical part of the body *b*, so that the ink will be well mixed and  
80 thoroughly distributed on the said rolls. They then pass over the printing-surface *c*, inking the same, and the body *b* again takes up the position shown at Fig. 1, whereupon the driving mechanism ceases to drive the same by  
85 reason of the teeth of the driving-gear *k* stopping at this point. At the same moment the teeth of the driving-gear *l* come into engagement with the gear of the shaft of cam *f* and raise the platen *e*, the table *d* having been  
90 previously brought into position under the printing-surface by means of the lever system *n* and cam-disk *m*. The impression is thus made and the platen returns to its lower position, whereupon the body *b* again begins to  
95 revolve, feeding and distributing the ink, as hereinbefore described. The distribution of the ink on the cylindrical portion of the body *b* forms an important part of the present invention, as also the automatic inking of the  
100 press *c*, which has hitherto been impossible in this class of printing-press.

In Fig. 2 a modification is shown in which the platen is raised by the cam *f*, which is mounted on a shaft immediately underneath

the roll *r* of stem *s* of the same, so that there is no need of the lever or toggle *g*. The machine is otherwise the same as that illustrated in Fig. 1.

- 5 In Fig. 3 a device is shown for positively arresting the printing-surface of the body *b* above the platen and table. In this case the part *b* is provided with a disk or frame *t*, having a recess *t'*, into which a lug *u* of the platen  
10 *e* engages when the latter rises, so as to retain the body *b* in the required position until the print or impression has been made.

I claim as my invention—

1. In a platen-press the combination of a  
15 cylindrical rotary body having a flattened printing-surface, a horizontally-reciprocatory table mounted on a vertically-reciprocatory platen, a series of inking-rolls mounted above the cylindrical body, means for periodically  
20 raising the same to contact with an ink-feed roll and means for rotating the printing-body and the platen alternately in the manner and for the purpose substantially as described.
2. In a platen-press, the combination of a  
25 printing-surface mounted to rotate and having a cylindrical backing a series of inking-rolls mounted to rotate on said backing and to feed ink to the said printing-surface, means in connection with the said backing for pe-  
30 riodically raising said rolls to contact with an ink-feed roll, a vertically-reciprocatory platen having thereon a horizontally-reciprocatory table mounted beneath said printing-surface and means for arresting the said print-  
35 ing-surface in the position to print as the platen rises in the manner and for the purpose substantially as described.
3. In a platen-press the combination of a

stationary cylinder having thereon a rotary printing-body having cylindrical backing, a 40 series of inking-rolls and means for periodically raising the same to contact with an ink-feed roll, a vertically-reciprocatory platen mounted beneath said printing-body a hori-  
45 zontally-reciprocatory table on said platen and means for rotating the said printing-body when the platen is stationary and for raising the said platen when the printing-body is stationary and for horizontally moving the table  
50 under the printing-body before the platen is raised in the manner and for the purpose substantially as described.

4. In a platen-press the combination of a stationary supporting-cylinder, a rotary cyl-  
55 inder thereon having a flattened printing-surface, a series of inking-rolls to move on said cylinder and means for periodically raising the same to contact with an ink-feed roller, a ring on said printing-body having  
60 a recess therein, a vertically-reciprocating platen and a horizontally-reciprocatory table mounted thereon and a lug on said platen to engage the recess of the said printing-body  
65 when the parts are in position to print and arrest the same and means for rotating the printing-body when the platen is stationary and for raising the latter when the printing-  
70 body is stationary and for shifting the platen-table when the print is to be made substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

AMBROSIUS HUGO SCHUMANN.

Witnesses:

JOHANNES STAKE,  
RUDOLPH FRICKE.