

No. 736,540.

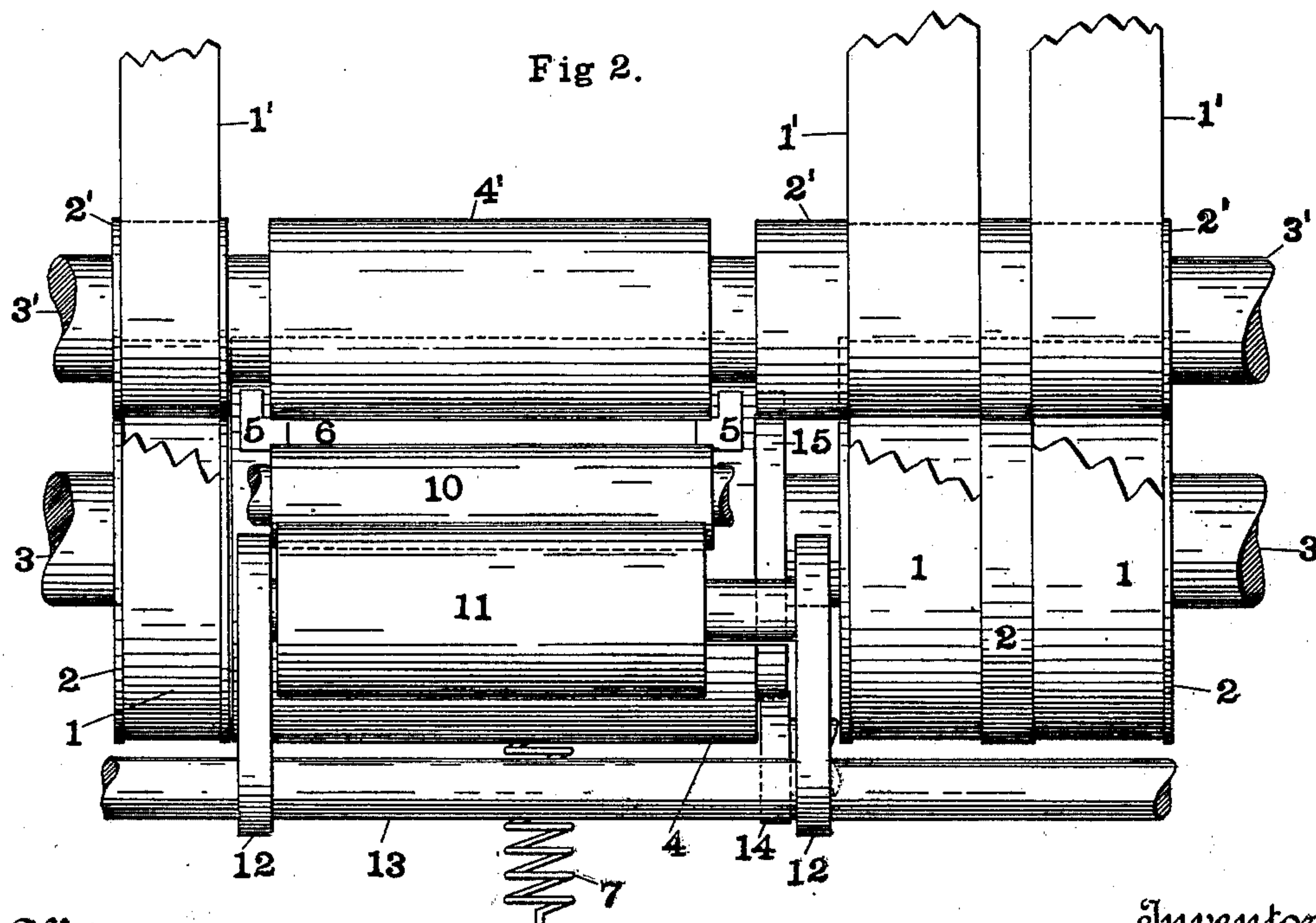
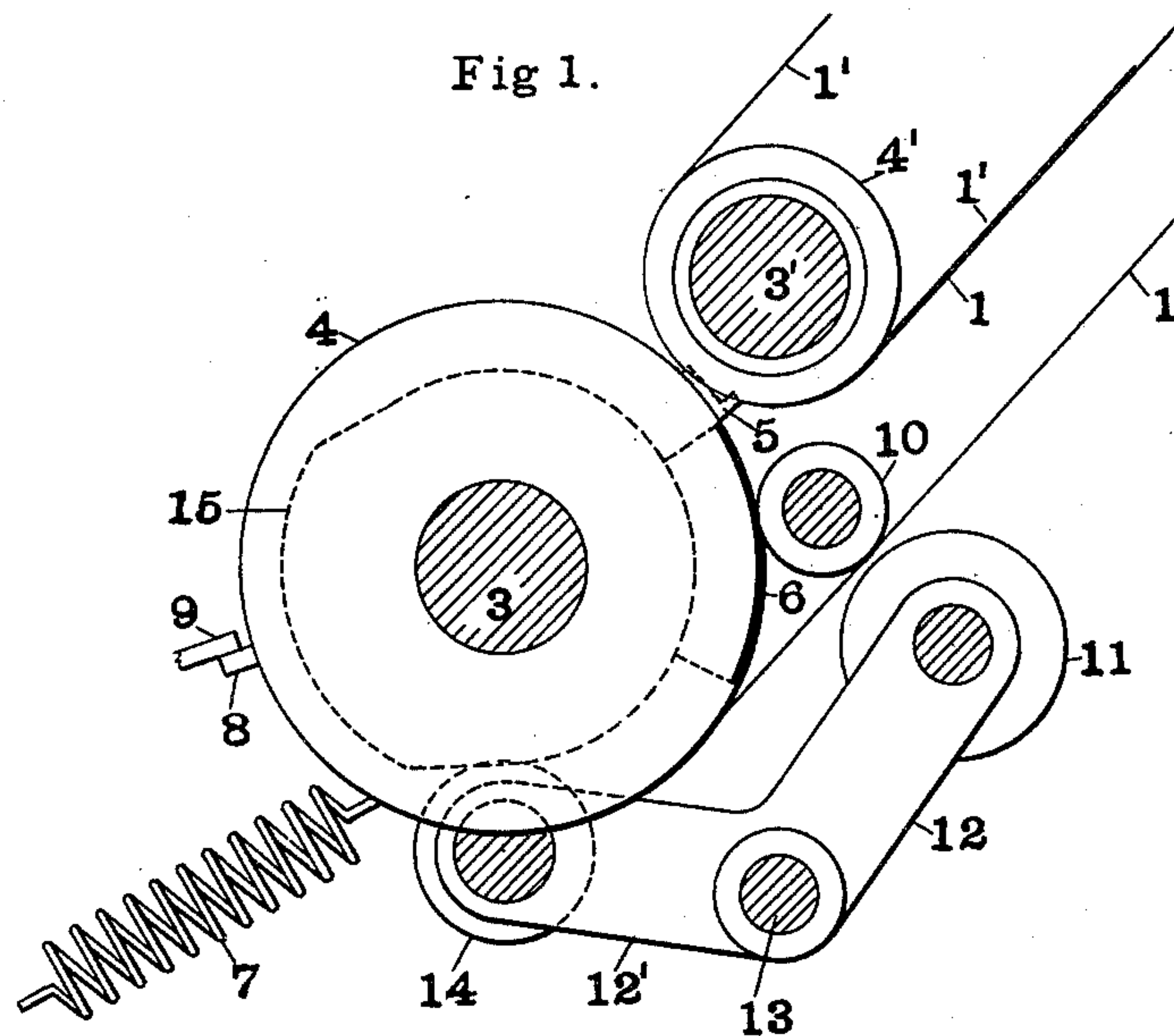
PATENTED AUG. 18, 1903.

C. OWENS.  
PRINTING.

APPLICATION FILED JULY 18, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses  
Wm. E. Crane Jr.  
Francis S. Ginther

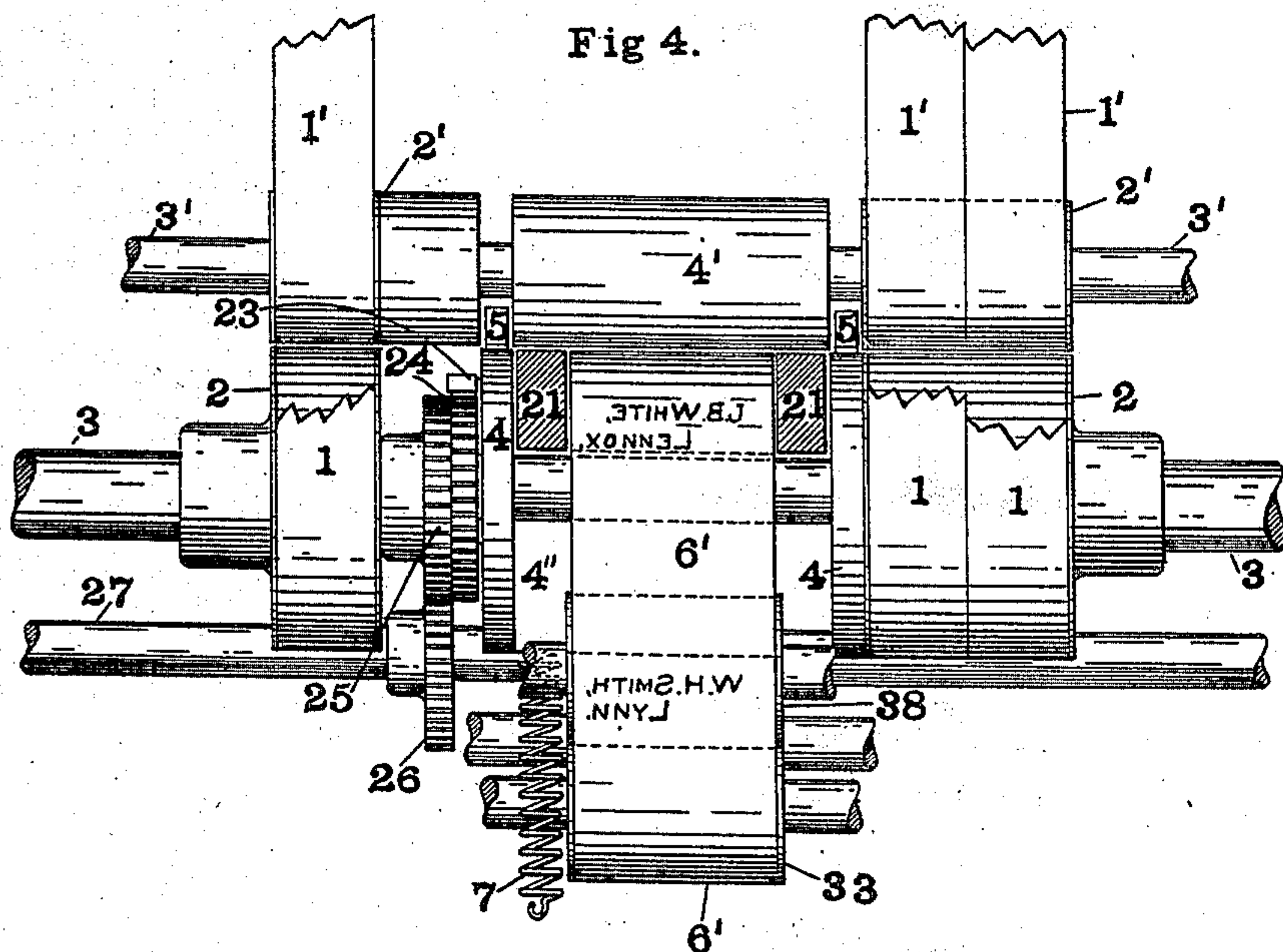
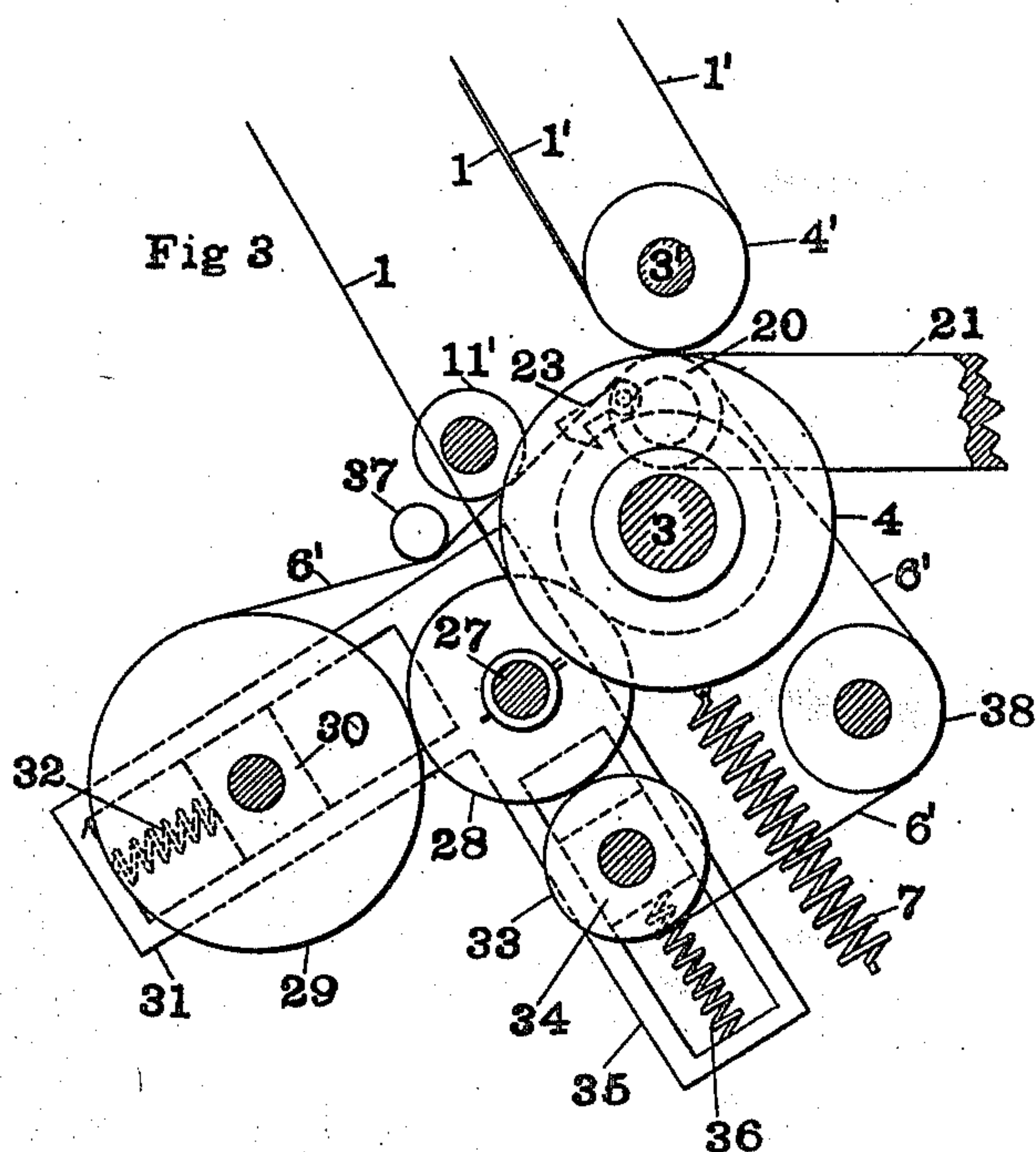
Inventor  
Charles Owens  
By Charles N. Butler  
Attorney

C. OWENS.  
PRINTING.

APPLICATION FILED JULY 18, 1902.

NO MODEL.

2 SHEETS—SHEET 2.



Witnesses  
Attest E. Crane Jr.  
Francis S. Ginther

Inventor  
Charles Owens  
By Charles N. Presley  
Attorney



# UNITED STATES PATENT OFFICE.

CHARLES OWENS, OF CHATTANOOGA, TENNESSEE, ASSIGNOR OF ONE-HALF  
TO DWIGHT P. MONTAGUE, OF CHATTANOOGA, TENNESSEE.

## PRINTING.

SPECIFICATION forming part of Letters Patent No. 736,540, dated August 18, 1903.

Application filed July 18, 1902. Serial No. 116,017. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES OWENS, a citizen of the United States, and a resident of Chattanooga, in the county of Hamilton and State of Tennessee, have invented certain Improvements in Printing Mechanism, of which the following is a specification.

This invention relates more particularly to mail-marking and address-printing. Its primary object is to provide inexpensive automatic mechanism operating cheap and readily-constructed type-forms, which will rapidly mark or address wrapped pamphlets, catalogues, magazines, and the like. The printing operation is effected by the action of the article to be printed as it is carried through the press, and the type-forms are suitably made by raising or embossing letters on sections of ribbons of sheet metal, as by the action of a type-writing machine on sheet-brass six one-thousandths of an inch thick.

The nature and characteristic features of the improvements will more fully appear by reference to the following description and the accompanying drawings in illustration thereof, of which—

Figure 1 shows a form of the printing mechanism in side elevation. Fig. 2 is a rear elevation of the construction as shown in Fig. 1. Fig. 3 shows a second form of the printing mechanism, and Fig. 4 is a rear elevation of the construction as shown in Fig. 3.

Referring particularly to Figs. 1 and 2 of the drawings, the conveying mechanism comprises the tapes 1, traveling over the pulleys 2, which are mounted on a revoluble shaft 3, having the roller 4 loosely mounted thereon, these elements coacting, respectively, with the conveying-tapes 1', traveling over the pulleys 2', which are mounted on the shaft 3', having the platen or pressure roller 4' mounted thereon, the article to be printed being held between the advancing sections of the conveyers and carried thereby between the platen 4' and roller 4. As the tapes and pulleys are adapted for carrying the articles between the platen 4' and the roller 4, the platen may be arranged so as to revolve with or independently of the pulleys; but it will be understood that if it is arranged to revolve therewith it should not be in such frictional en-

gagement with the roller as to cause it to revolve. As the respective articles are carried between the platen 4' and roller 4 they engage the projections 5, fixed to the roller, and revolve the same, so that the type-form 6, preferably a lettered section of metallic ribbon carried by the roller 4, is pressed against the face or wrapper of the article which is printed thereby and then discharged. The spring 7, connected with the roller 4, then throws it back to its initial position, limited by the engagement of the lug 8 thereon with the abutment 9. The type-form 6 is inked by the gelatin roller 10, which is inked intermittently by the rocking-roller 11, the latter being journaled in the arms 12, fixed on the shaft 13, which is rocked by the arm 12', with the roller 14 bearing on an oscillating cam 15, fixed with relation to the roller 4.

Referring to Figs. 3 and 4 of the drawings, as in Figs. 1 and 2, the article to be printed is carried by the conveying-tapes 1 and 1', passing over the pulleys 2 and 2' on the shafts 3 and 3' between the roller 4 and platen 4', and by engaging the projections 5 revolves the roller 4, which is thrown back by the spring 7, when the article is discharged. In this construction the roller 4 is provided with the recess 4'' to receive the auxiliary roller 20, which is journaled in the bearings 21. The roller 4 has in this construction a pawl 23 connected therewith, which engages a ratchet-wheel 24, to which a gear-wheel 25 is fixed, the ratchet and gear wheels being revolubly mounted on the shaft 3. The gear-wheel 25 engages the gear-wheel 26, which is fixed on a revoluble shaft 27, having a friction disk or wheel 28 fixed thereon. Against the disk 28 is pressed the reel or spool 29, which is journaled in the blocks 30, adapted to move in the guides 31 and thrust forward by the springs 32. Against the disk 28 there is also pressed the reel or spool 33, which is journaled in the blocks 34, adapted to move in the guides 35 and thrust forward by the springs 36. The reel 29 has wound thereon one end of the metallic ribbon 6', with type-forms or electrotypes sectionally arranged thereon, the ribbon passing thence under the idle roller 37 and the gelatin inking-roller 11' over the auxiliary roller 20 and idle roller 38



to the reel 33, upon which it is wound, the roller 20 being adapted to move with the ribbon 6' and the type-forms thereon. In the operation each article which the conveying mechanism passes through the press actuates the printing device and carries the type-form forward against the article, which is printed thereby, the moving type-form being inked as it passes the inking-roller located in its path. When the press mechanism is released by the discharge of the printed article therefrom, it is thrown back to be again engaged by the succeeding article to be printed, by which the press mechanism and the inked form required are advanced to print and discharge the article as before.

Having described my invention, I claim—

1. The combination of conveying mechanism, with printing mechanism actuated by the article carried by the conveying mechanism, the printing device being in the path of the approaching article and receiving its printing movement from the impact thereof, substantially as specified.

2. The combination of conveying mechanism, with printing mechanism comprising a platen and a printing device actuated by the article carried by the conveying mechanism, the printing device being in the path of the approaching article and receiving its printing movement from the impact thereof, substantially as specified.

3. The combination of conveying mechanism, with a platen, a revoluble device and a type-form, said device being in the path of and actuated by the impact of an advancing article to be imprinted, substantially as specified.

4. The combination of conveying mechanism comprising a set of traveling tapes, with printing mechanism comprising a pressure-roller and a printing device in the path of and actuated by the impact of an advancing article to be printed as it is passed there-through by the conveying mechanism, substantially as specified.

5. The combination of conveying mechanism, with printing mechanism comprising a pressure-roller, a reciprocating device, and a type-form, said reciprocating device being actuated and the printing effected by the impact of the article to be imprinted, substantially as specified.

6. The combination of conveying mechanism comprising a set of traveling tapes, with a revolving platen, a reciprocating device, and a type-form, said device being actuated by the article to be imprinted, substantially as specified.

7. The combination of conveying mechanism comprising a set of traveling tapes, with a revolving platen, a reciprocating device and a type-form, said device being actuated by the article to be imprinted and automatically retracted upon the discharge of the imprinted article, substantially as specified.

8. The combination of conveying mechanism

comprising a set of traveling tapes, with a rolling platen, a rolling device coacting with said platen, and a type-form of embossed sheet metal, operated by said rolling device, said rolling device being reciprocated to effect the operation of said type-form, substantially as specified.

9. The combination of conveying mechanism comprising a set of traveling tapes, with a platen roller, a rolling device actuated by the article to be imprinted, and a type-form of embossed sheet metal carried by said device against said article, said device being reciprocated to effect the impression of such type upon the articles to be imprinted, substantially as specified.

10. The combination of conveying mechanism, with a rolling platen, a rolling device actuated by the impact of the article carried by the conveying mechanism, a traveling type-form adapted to be imprinted upon the article by the rolling device, and a roller for inking the type-form, substantially as specified.

11. The combination of conveying mechanism comprising two sets of traveling tapes, with a rolling platen, a rolling device actuating a type-form, an inking-roller in the path of said type-form, said type-form being actuated by the article to be imprinted, an oscillating roller for inking said inking-roller, a cam coacting with said rolling device, and rocking mechanism by which said cam actuates said oscillating roller, substantially as specified.

12. The combination of two sets of traveling tapes, with a rolling device actuated by the article to be imprinted and a type-form actuated thereby, an inking-roller in the path of travel of said type-form, an oscillating roller for inking said inking-roller, a cam connected with said rolling device, and rocking mechanism by which said cam actuates said oscillating roller, substantially as specified.

13. The combination of a revolving platen, with a roller adapted to be actuated by an article to be imprinted, an auxiliary roller or bed, and a type-form advanced by said first roller and pressed by said auxiliary roller against said article, substantially as specified.

14. The combination of a conveying mechanism, with a roller, a ribbon having type-forms arranged thereon, and mechanism for carrying said ribbon over said roller, said mechanism being actuated by articles carried by said conveying mechanism, substantially as specified.

15. The combination of a platen, with a roller, a ribbon having type-forms arranged thereon, and mechanism for carrying said ribbon over said roller, said mechanism being actuated by articles carried between said platen and roller, substantially as specified.

16. The combination of a roller, with an oscillating ratchet mechanism, a pair of reels connected with and operated by said ratchet mechanism, and a ribbon bearing type-forms



drawn by said reels over said roller, substantially as specified.

5 17. The combination of a roller, with an oscillating ratchet mechanism, a shaft having a friction-wheel thereon geared to said ratchet mechanism, a pair of reels operated by frictional contact with said friction-wheel, and a ribbon bearing type-forms, substantially as specified.

10 18. The combination of a pair of reels having journal-blocks movable in guides, with a wheel with which said reels are held in engagement, a rolling bed, a ribbon bearing type-forms passing over said bed and having  
15 its ends wound upon said reels, and mechanism connecting said bed and wheel whereby said type-forms are advanced in conjunction

with the movement of said bed, substantially as specified.

19. The combination of a rolling platen, 20 with a roller actuated by the impact of an article passing between said platen and roller, an auxiliary roller, a pair of reels connected with and actuated by said first-named roller, and a ribbon having type-forms thereon 25 passed by said reels over said second-named roller, substantially as specified.

In testimony whereof I have hereunto set my hand, in the presence of the subscribing witnesses, this 14th day of July, 1902.

CHARLES OWENS.

Witnesses:

A. R. MCKENZIE,  
T. L. MONTAGUE.