

No. 892,700.

PATENTED JULY 7, 1908.

D. A. WILSON.
INKING MECHANISM FOR ROTARY LITHOGRAPHIC PRESSES.

APPLICATION FILED JAN. 6, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

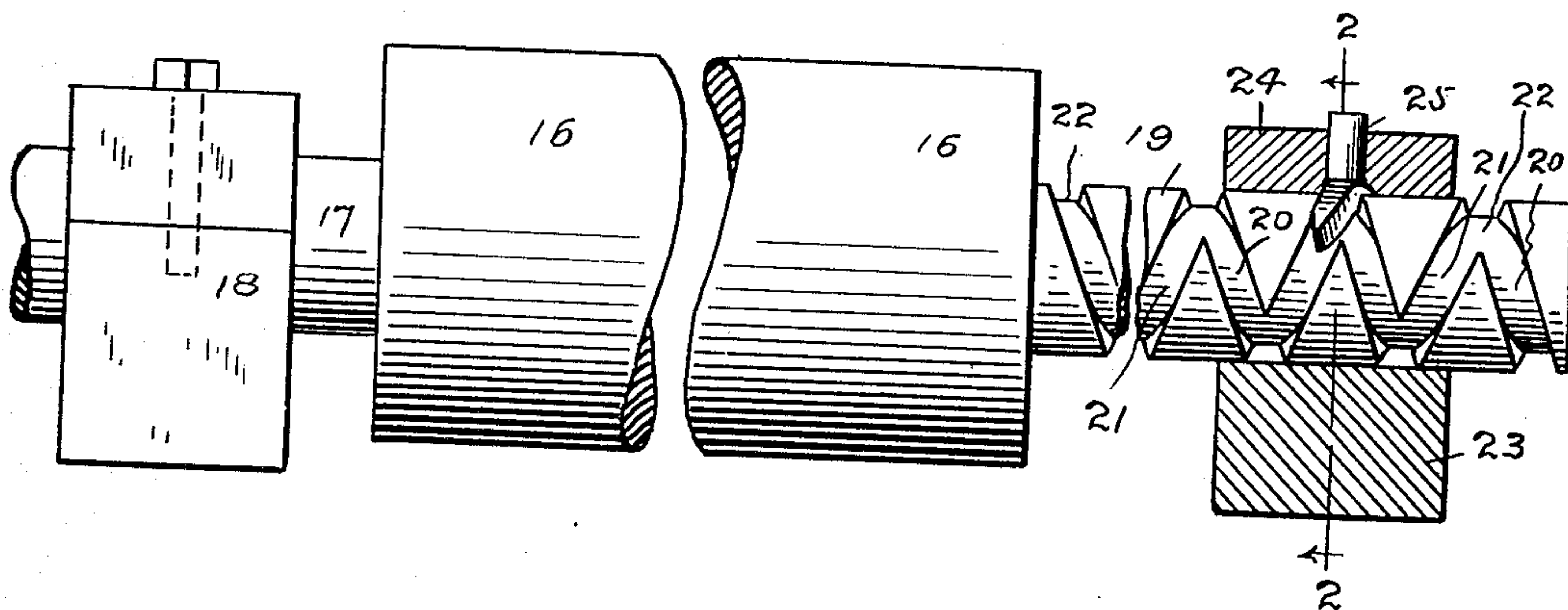


Fig. 2.

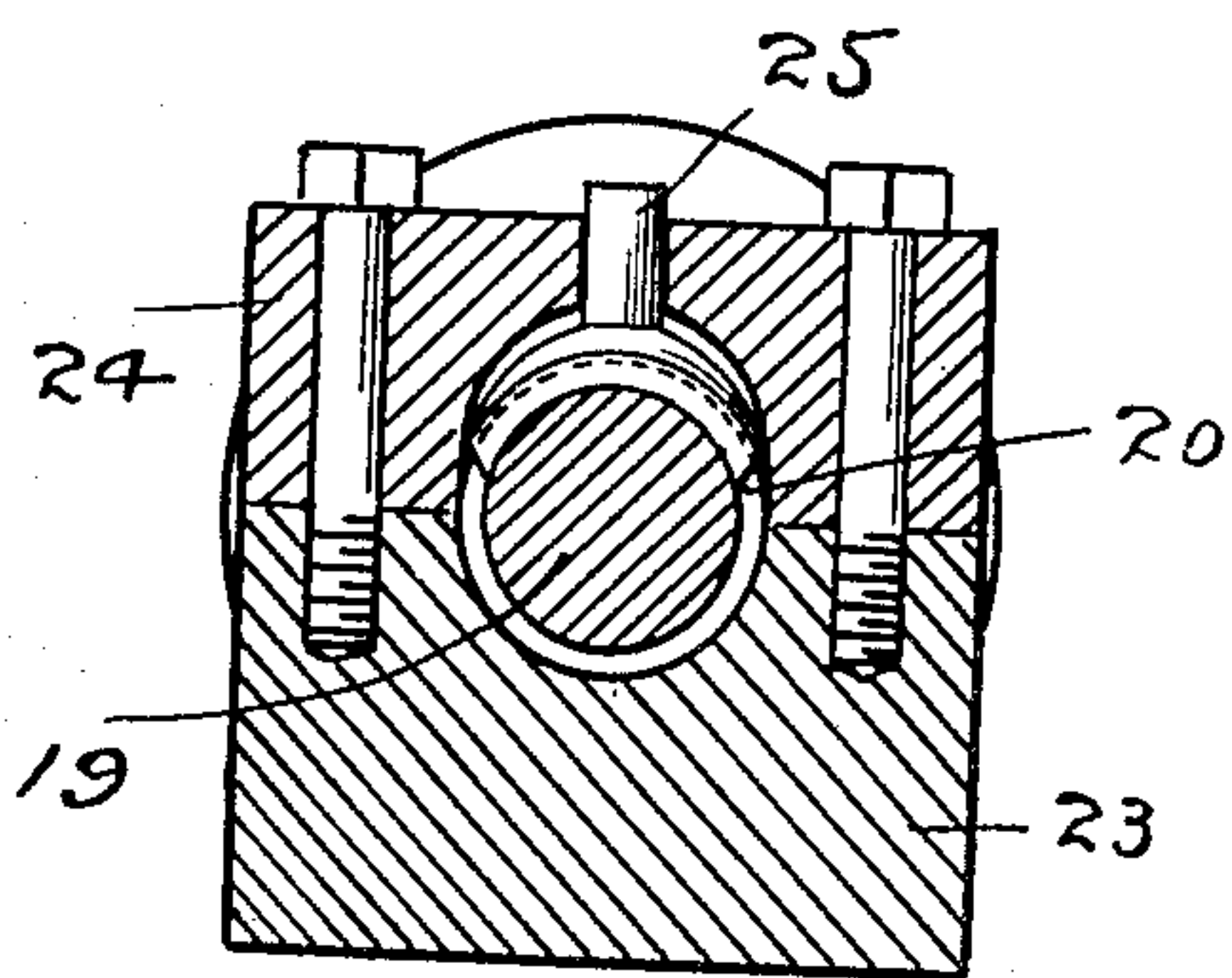


Fig. 3.

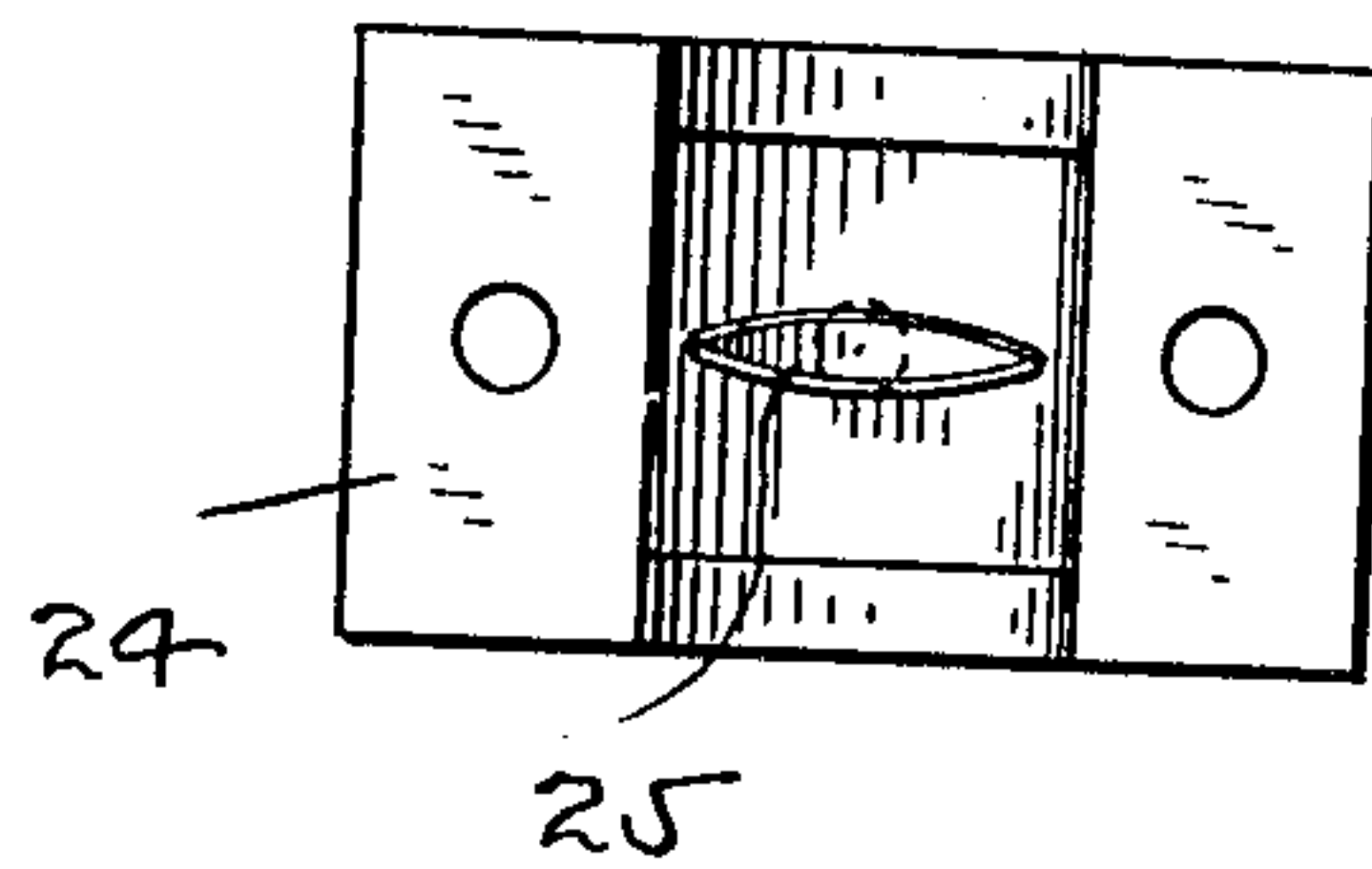
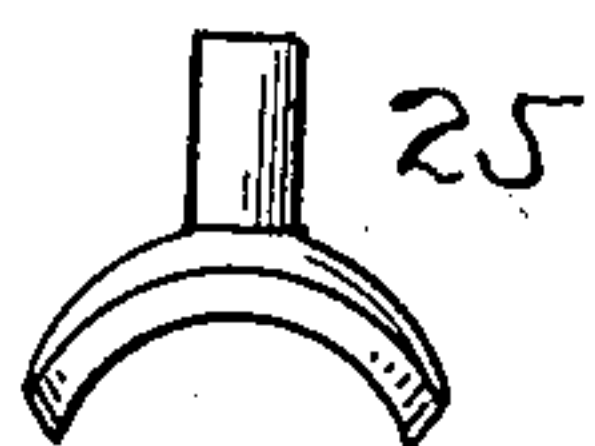


Fig. 4.



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2 SHEETS—SHEET 2.

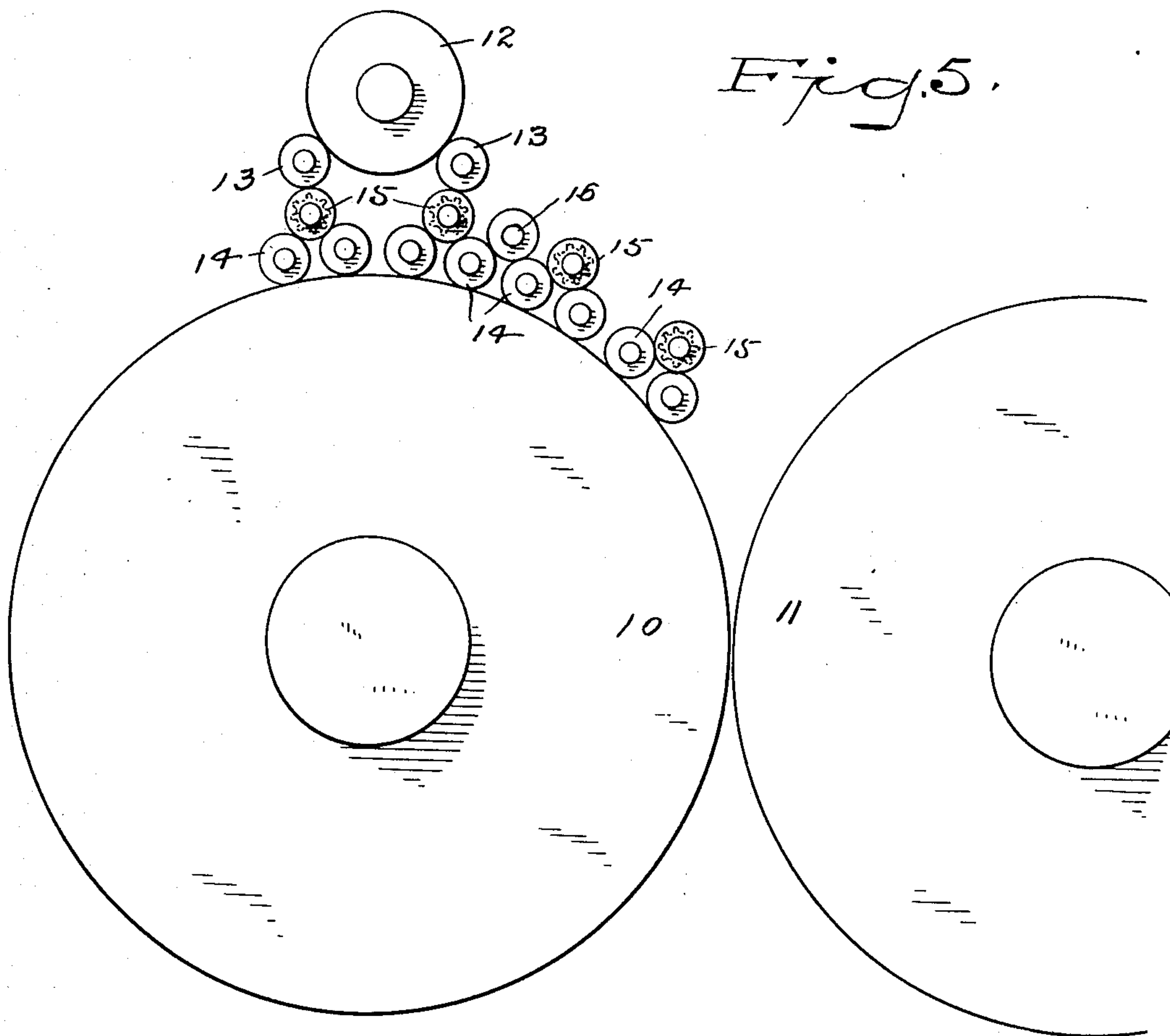
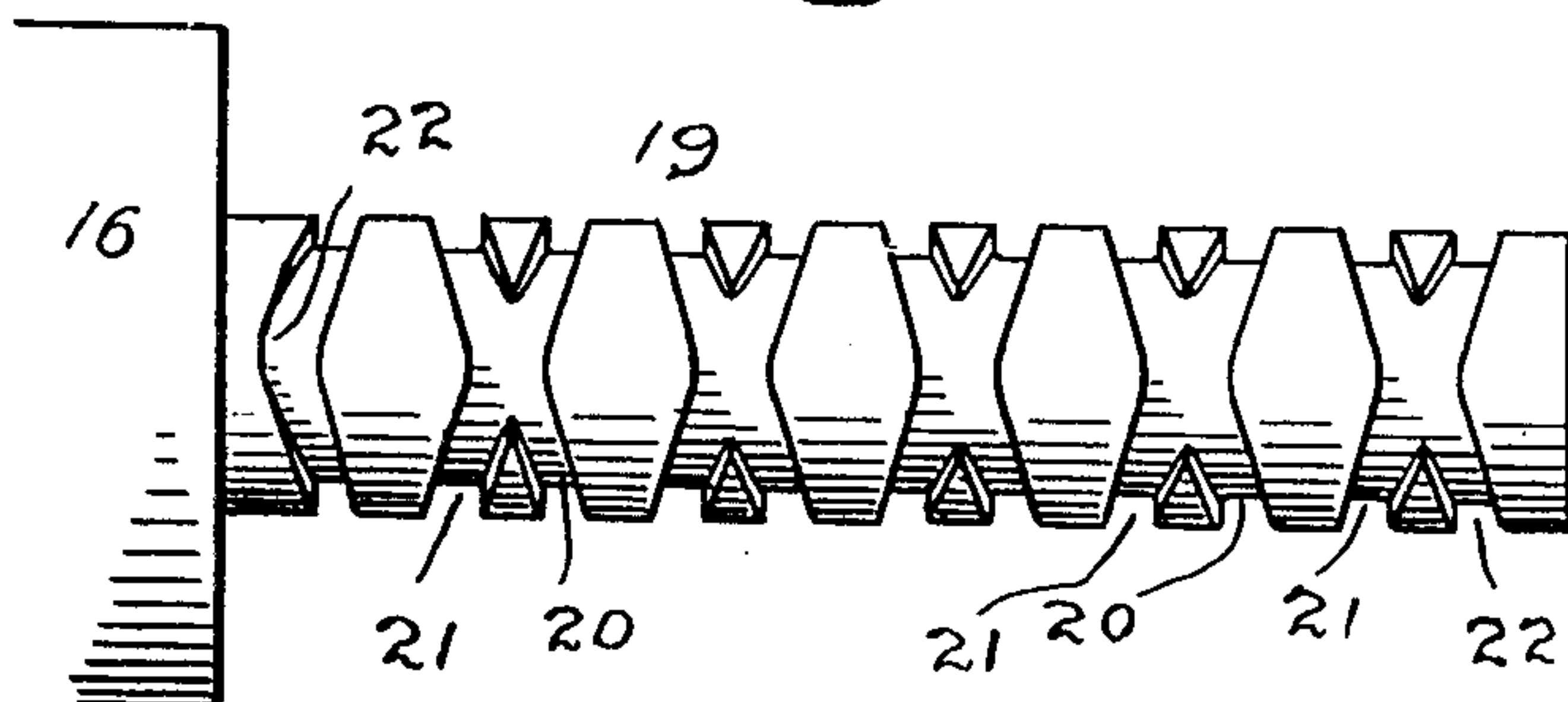


Fig. 6.



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UNITED STATES PATENT OFFICE

DAVID A. WILSON, OF NEW HAVEN CONNECTICUT.

INKING MECHANISM FOR ROTARY LITHOGRAPHIC PRESSES.

No. 892,700.

Specification of Letters Patent.

Patented July 7, 1908.

Application filed January 6, 1908. Serial No. 409,418.

To all whom it may concern:

Be it known that I, DAVID A. WILSON, a citizen of the United States, residing at New Haven, county of New Haven, State of Connecticut, have invented a new and useful Inking Mechanism for Rotary Lithographic Presses, of which the following is a specification.

This invention is especially adapted for use in rotary lithographic presses and has for its object to produce simple and novel means for positively reciprocating the distributing roller longitudinally so that black or colored ink may be distributed evenly on the printing rollers, my novel distributing roller and its journals being made solid and the journals resting in suitable bearings. By making the distributing roller solid and providing it with two journals both supported in bearings, I insure that there will be no sagging of the roller and also that the action of the reciprocating mechanism shall be positive and uniform.

With these and other objects in view I have devised the novel mechanism, of which the following description in connection with the accompanying drawings is a specification, reference characters being used to indicate the several parts.

Figure 1 is an elevation of my novel distributing roller and the bearings therefor, one of the bearings being in section; Fig. 2 a section on the line 2—2 in Fig. 1, looking in the direction of the arrow; Fig. 3 an inverted plan view of the cap of the bearing for the grooved journal, detached, with the traveler in place; Fig. 4 a view of the traveler detached; Fig. 5 an outline view showing the cylinders and rollers of a lithographic press in end elevation; and Fig. 6 is an elevation of the distributing roller detached, showing the double-grooved journal from a point of view at right angles to that in Fig. 1 and showing the manner in which the reverse grooves run into each other at the ends.

10 denotes the printing cylinder, 11 the impression cylinder, 12 the drum roller, 13 feed rollers, 14 form rollers, 15 driving rollers and 16 my novel distributing roller. The distributing roller is provided at one end, the left as seen in Fig. 1, with a smooth journal 17 resting in a bearing 18, and at its opposite

end with a journal 19 provided with reverse intersecting spiral grooves, the right groove being indicated by 20 and the left groove by 21. At each end of the journal, the right and left grooves run into each other, the point of intersection being indicated by 22 in Fig. 6. Journal 19 rests in a bearing 23 whose cap 24 carries a traveler 25 which engages the grooves and which is made long enough so that it cannot pass from one groove to the other except at the intersection points 22 at the ends of the grooves.

It will be observed that the cap 24 is removably connected with the bearing 23 by screws or bolts. And the swivel or shank of the traveler 25 projects through and above the top of the said cap. Therefore if the traveler shows a tendency to bind owing to ink or any other material getting into the grooves 20 and 21, such tendency to bind can be overcome conveniently either by removing the cap 24 and lifting the traveler out of its operating position and cleaning and restoring it again, or if the binding is not a firm one the traveler can be loosened by grasping the projecting upper end of the swivel or traveler and working it laterally so as to loosen it and enable it to work properly.

In use, the distributing roller is driven by frictional contact with the form rollers and is caused to reciprocate longitudinally through the engagement of the traveler with the reverse spiral grooves. The journals 17 and 19 move longitudinally in their bearings, and when the traveler reaches the end of a groove, for example, the right groove, it is automatically reversed and passes into the left groove which reverses the longitudinal movement of the roller, the roller continuing to move longitudinally in either direction until the traveler reaches the end of the groove causing the movement; when the traveler passes into the other groove and automatically reverses the longitudinal movement of the roller, the rotary movement of said roller being continuous.

Having thus described my invention I claim:

The combination with a distributing roller having at one end a smooth journal and at the other end a journal provided with reverse intersecting spiral grooves, of bearings

in which said journals may slide longitudinally, the bearing for the grooved journal being provided with a removable cap, and a traveler engaging the grooves, said grooves
5 running into each other at the ends of the journal, whereby when said roller is rotated it is caused to reciprocate longitudinally, the traveler having a shank swiveled in the said

removable cap and projecting above the top of the same.

In testimony whereof I affix my signature,
in presence of two witnesses.

DAVID A. WILSON.

Witnesses:

MICHAEL F. MAHONEY,
GEORGE ELLIS.