

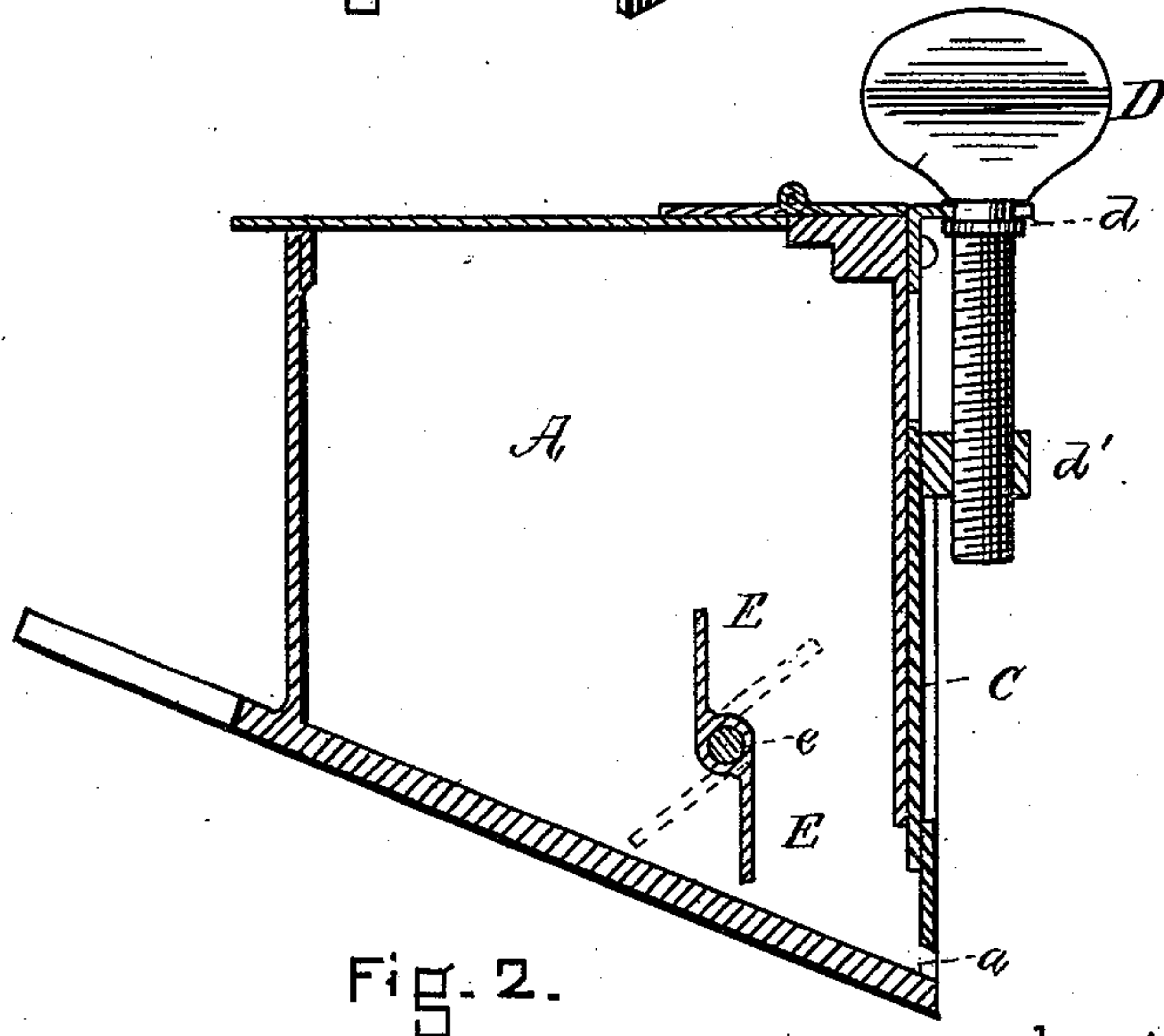
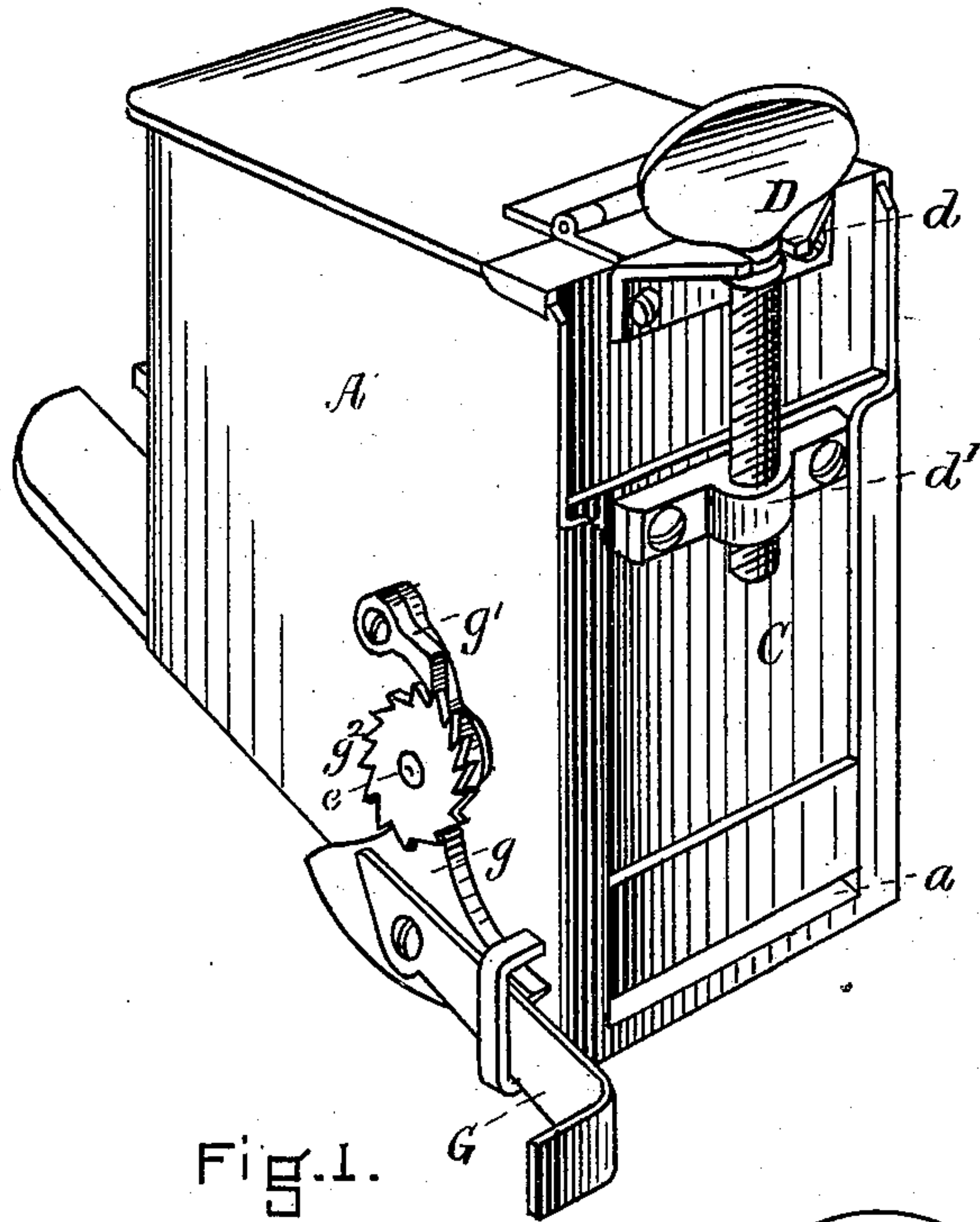
(No Model.)

2 Sheets—Sheet 1.

S. P. LIBBEY & A. L. PARCELLE.  
Ink Fountain.

No. 230,028.

Patented July 13, 1880.



WITNESSES

A. J. Oettinger  
M. H. Sawyer.

INVENTORS

Albert L. Parcellle  
Samuel P. Libbey  
by their attys  
Clerke & Raymond

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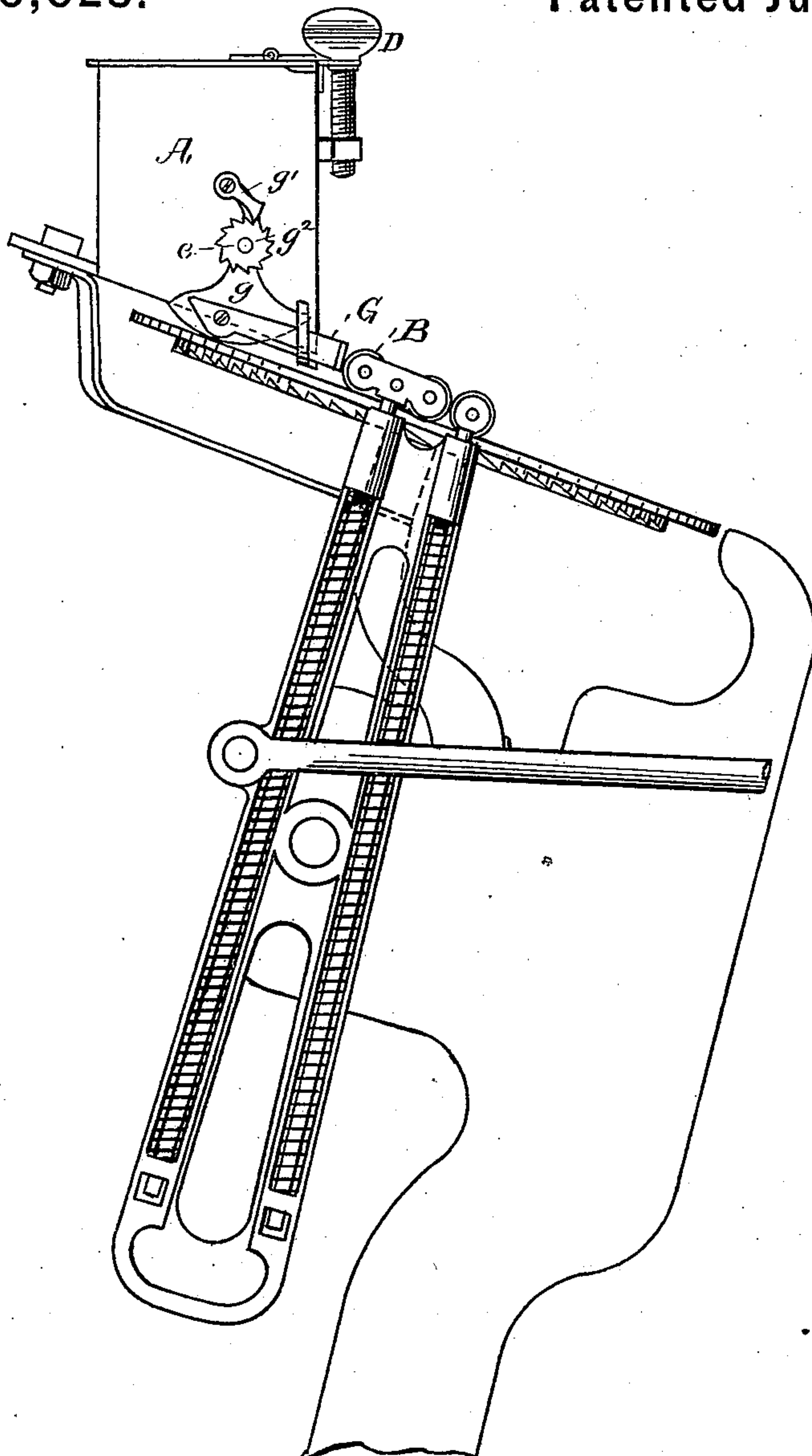


Fig. 3.

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# UNITED STATES PATENT OFFICE.

SAMUEL P. LIBBEY AND ALBERT L. PARCELLE, OF BOSTON, MASS.

## INK-FOUNTAIN.

SPECIFICATION forming part of Letters Patent No. 230,028, dated July 13, 1880.

Application filed March 13, 1880. (No model.)

*To all whom it may concern:*

Be it known that we, ALBERT L. PARCELLE and SAMUEL P. LIBBEY, both of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented an Improvement in Ink-Fountains, of which the following is a specification.

This invention consists in an ink-fountain arranged in relation to the inking-roll of a printing-press as hereinafter described, and provided with means for feeding the ink to a position to be taken by the inking-roll at the end of its outward movement across the platen.

Reference is made to the accompanying drawings, forming a part of this specification, in explaining the nature of our invention, in which—

Figure 1 is a perspective of our ink-fountain; Fig. 2, a cross-section thereof, and Fig. 3 is an elevation, representing the relation of the ink-fountain to the ink-feeding roll.

A great many ways have been devised for feeding ink to the inking-rolls of printing-presses; but so far as we are aware they are all more or less objectionable on account of the imperfect delivery of the ink to the inking-roll.

In this mechanism we provide the reservoir A of the ink-fountain with an outlet, *a*, and the said reservoir is supported in relation to the inking-roll so that upon the end of its outward movement the inking-roll B shall come in contact with the portion of the reservoir around the outlet *a*. The size of this outlet is varied by means of the gate C, which is lifted or lowered in suitable guides upon the face of the reservoir by means of the thumb-screw D, which has a bearing in the projection *d*, and which operates the gate C through the medium of the nut *d'*.

For inks having a light body this construction will answer very well, and by adjusting the size of the outlet *a* by moving the gate C to the amount of ink which it is desired to deliver a uniform supply is taken by the inking-roll. The heavier kinds of ink, or those containing more gum, do not, however, flow into the outlet sufficiently fast to enable the inking-roll to take as large a quantity as is essential, and we have arranged within the reservoir a device for pressing the ink downwardly and outwardly through the outlet in order that it may project sufficiently from the outlet to en-

able the inking-roll to take it easily. This device consists of one or more blades, E, which project from the shaft *e*, extending across the reservoir, and the blades E are partially revolved with every outward movement of the inking-roll by means of the push-bar G, the radial bar *g*, which has a bearing on the shaft *e* outside the reservoir, and the gravity tangent-pawl *g'*, which is pivoted to the radial bar *g*, and which engages with the ratchet-wheel *g''* upon the shaft *e*. The push-bar G projects sufficiently to be moved by some portion of the inking-roll or its frame upon its outward movement. The radial bar *g* is weighted upon its lower end sufficiently to automatically return the push-bar G to its original position upon the movement of the inking-roll away from the reservoir. The blades are thus revolved sufficiently to force out enough ink through the outlet in the reservoir to furnish a proper supply for the inking-roll, and, being located in close proximity to the outlet, they prevent the waste of ink, as about all of it can be used, and a very small quantity can be effectually fed, as the pushing-blades not only advance the ink in the reservoir toward and through its outlet, but also act as a barrier in preventing the contact of the roll with the ink at the outlet from pressing it back into the reservoir, and, as some of the heavier inks are the most expensive, the importance of this improvement is manifest.

It will be observed that, if there were no barrier within the reservoir and close to the outlet, when a heavy ink is worked the inking-roll, instead of lapping it from the outlet at every outward movement, would very frequently push it back into the passage and reservoir, and that when a barrier exists behind the outlet the inking-roll, upon contact with the ink, spreads it somewhat upon its surface and gets sufficient hold to draw a small quantity away from the outlet.

The reservoir can be fastened in any desirable way to the frame-work of the machine.

In case a roll is arranged at the outlet so that it revolves partly in the ink in the reservoir and transfers it upon its periphery to a position outside the reservoir, whereby the inking-roll upon its outward movement may come in contact therewith and take therefrom a sup-



ply, (as is common in a great many of the ink-fountains now in use,) the blades will operate not only to push the ink toward the outlet, but also against the said feeding-roll, and the contact of the roll with the ink is thereby made constant. When the pushing-blades are thus used in connection with an intermediate feed-roll located at the outlet, it may be desirable to change their location somewhat in relation to the outlet, in order that the ink may be more effectually forced upon the periphery of the feed-roll, and we intend that our invention shall be employed as well with ink-fountains provided with such a roll as with those having a simple outlet only.

It will be observed that the blades act to prevent the ink from being forced back into the reservoir to the extent that would occur if they or an equivalent device were not employed, as each blade acts successively as an inelastic barrier back of the mouth or outlet of the reservoir, and thereby prevents a less amount of compression of the ink when forced inwardly than if the backward pressure were opposed by the elastic body of ink only.

It will be observed that, while two blades are employed on the shaft, one blade would suffice for the purposes of this invention if a complete revolution were imparted to it, the spirit of the invention being the arrangement of parts whereby a blade is caused to advance the ink toward or through the outlet of the reservoir, and then become stationary while the inking-roll is receiving ink, acting as a barrier in preventing the ink from being forced back into the reservoir to such an extent that the inking-

roll shall not supply itself with a sufficient quantity.

Having thus fully described our invention, we claim and desire to secure by Letters Patent of the United States—

1. In an ink-fountain provided with an outlet, *a*, one or more blades, *E*, arranged in relation to the outlet as set forth, and adapted to be operated as described.

2. In combination with an inking-roll of a printing-press, a fountain provided with an outlet, *a*, and with means for pushing the ink through or toward the outlet, located within the reservoir and operated by the inking-roll upon its outward movement, substantially as described.

3. As a means for pushing ink through or toward the outlet of an ink-reservoir, the combination of an ink-moving device, *E*, and means for operating the same, consisting of the inking-roll *B*, push-bar *G*, radial bar *g*, pawl *g'*, ratchet-wheel *g''*, and shaft *e*, substantially as described.

4. The combination of an ink-fountain provided with a stationary bottom and an outlet, *a*, with one or more blades having an intermittent movement above said bottom and immediately in the rear of said outlet, and adapted to push the ink through or toward the outlet, and then to hold it in that position, substantially as and for the purposes described.

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SAMUEL P. LIBBEY.

Witnesses:

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