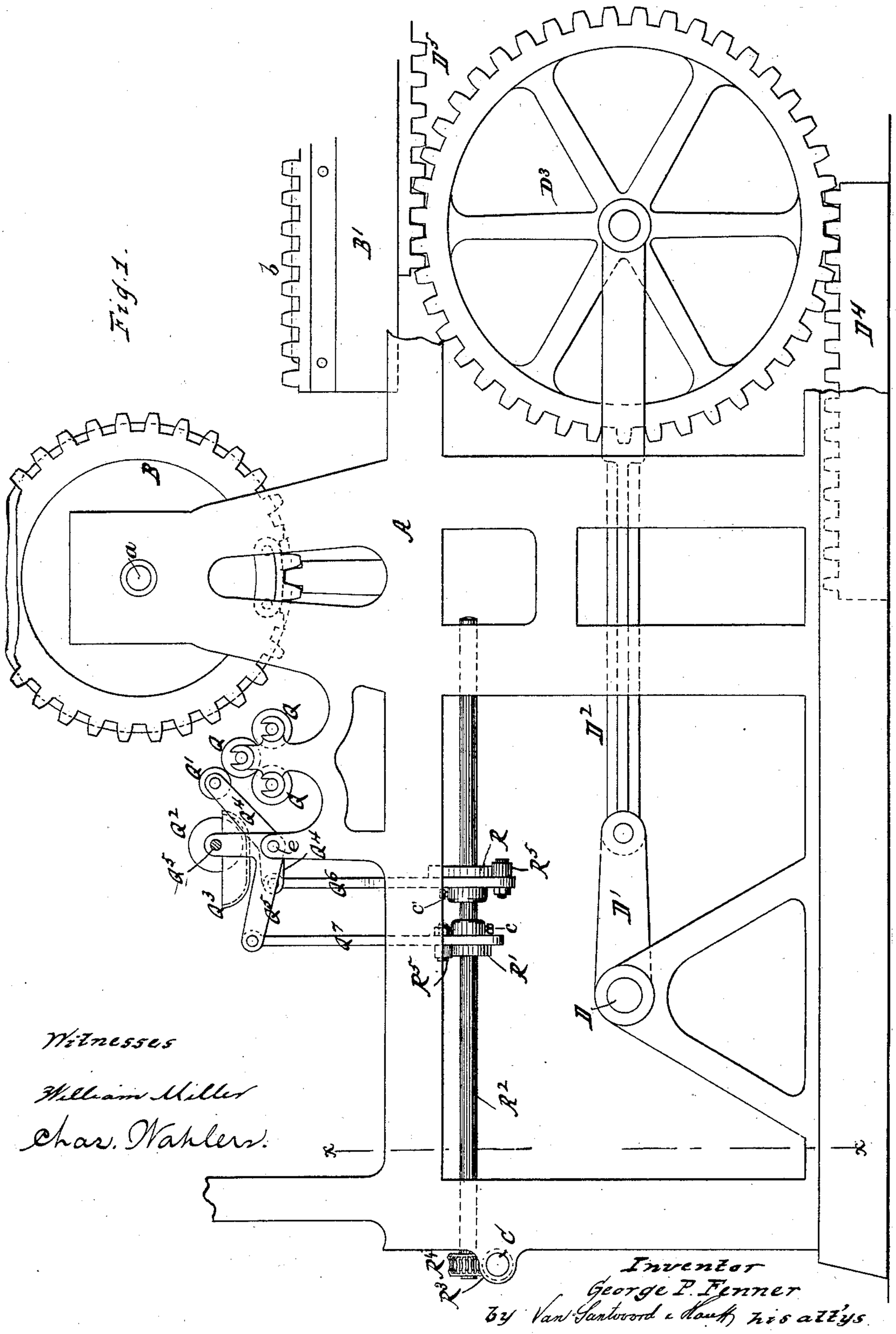
(No Model.) 2 Sheets—Sheet 1.

G. P. FENNER.

DAMPENING APPARATUS FOR LITHOGRAPHIC PRESSES.

No. 318,364. Patented May 19, 1885.

Fig. 1.



(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

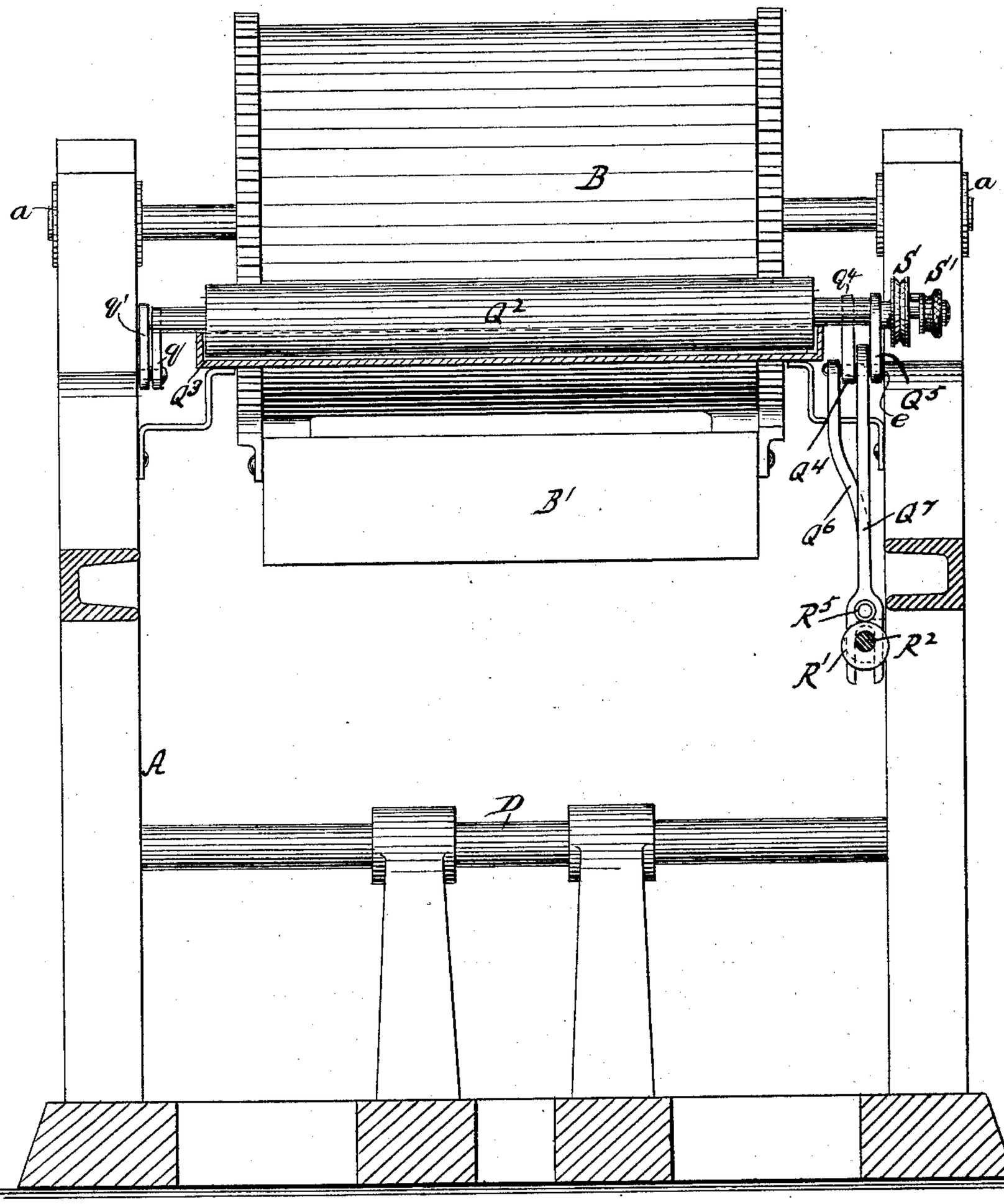
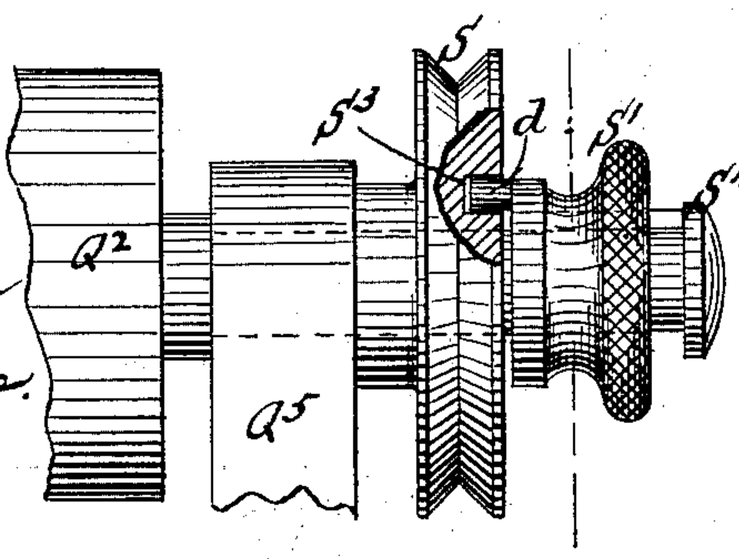
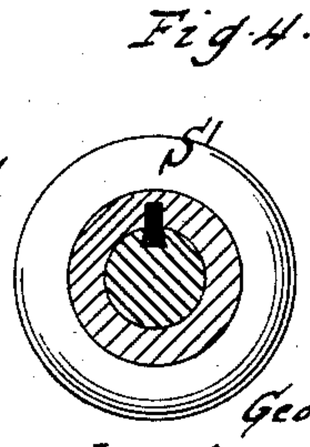


Fig. 3.



Witnesses
William Miller
Chas. Wahlers.

Fig. 4.



Inventor
George P. Fenner
by Van Santvoord & Hauff
his attys

UNITED STATES PATENT OFFICE.

GEORGE P. FENNER, OF NEW LONDON, CONNECTICUT.

DAMPENING APPARATUS FOR LITHOGRAPHIC PRESSES.

SPECIFICATION forming part of Letters Patent No. 318,364, dated May 19, 1885.

Application filed May 22, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE P. FENNER, a citizen of the United States, residing at New London, in the county of New London and State of Connecticut, have invented new and useful Improvements in Dampening Apparatus for Lithographic Presses, of which the following is a specification.

This invention relates to apparatus for dampening the stone of lithographic-printing presses; and it consists in certain novel features of construction, hereinafter described in the specification and claims, whereby the supply of water to the stone can be regulated with nicety.

In the accompanying drawings, Figure 1 is a side view, partly in section, of a portion of a press embodying my invention. Fig. 2 is a vertical cross-section thereof in the plane *x x*, Fig. 1. Figs. 3 and 4 are detail views of parts on a larger scale than the preceding figures.

Similar letters indicate corresponding parts.

In the drawings, referring at present especially to Figs. 1 and 2, the letter A designates the press-frame, having suitable bearings, *a*, for the impression-cylinder B, and suitable guideways (not shown) for the traveling bed B′. At one end of the frame is arranged the driving-shaft C, from which motion is transmitted to the main shaft D, and from this shaft motion is in turn transmitted through the medium of the usual crank, D′, and connecting-rod D^2 to the rack-wheel D^3, which gears into two racks, D^4 D^5, one fixed to the base of the press and the other to the traveling bed B′, for imparting a reciprocating motion to the latter in the usual manner. The traveling bed B′ carries the lithographic stone *b*, and in proper relation thereto are arranged dampening-rollers Q, for wetting the stone, water being conveyed to these rollers by taking-roller Q′, from a feed-roller Q^2, which is arranged in a reservoir, Q^3, to receive a revolving motion. The taking-roller has its bearing at one end in a pivoted arm, *q*, Fig. 2, and at its other end in one arm of the lever Q^4, and the feed-roller Q^2 has similar bearings in the pivoted arm *q′* and in one arm of the lever Q^5. The levers Q^4 and Q^5 are pivoted to the frame at *e*, and connected with cams R R′ on the counter-shaft R^2, the latter being geared with the driving-shaft by a worm, R^3, and a worm-wheel, R^4, or other suitable device, to receive a revolving motion, so that by the action of one of the cams, R, the required motion is imparted to the taking-roller Q′ from the feed-roller Q^2, and vice versa, while by the action of the other cam, R′, a motion is imparted to the feed-roller toward and from the taking-roller. The cams R R′ are adjustably secured to the counter-shaft R^2 by means of set-screws *c c′*, so that their "throw" or "lead" can be varied by rotating them in the proper direction and then screwing up on the set-screws. It will be observed that by varying the throw or lead of the cams the contact of the taking-roller Q′ with the feed-roller Q^2 may be varied to the greatest possible extent for determining the supply of water to the stone.

To engage the cams R R′, the connecting-rods Q^6 Q^7 are each provided with a roller-stud, R^5, each rod being, moreover, bifurcated at the lower end to straddle the counter-shaft R^2, as shown in Fig. 2. Motion is transmitted to the feed-rollers Q^2 from a suitable part of the press by means of a belt running over a pulley, S, Figs. 2 and 3, mounted on the feed-roller shaft. This pulley S is loose, and adjacent thereto is a clutch, S′, having a projection, *d*, which clutch is keyed to the roller-shaft to slide thereon toward and from the pulley, and the projection thereon is adapted to engage a socket, S^3, of said pulley, so that when this clutch is properly adjusted it engages the pulley, thus causing the roller-shaft and roller to share its motion, while these parts may be left stationary, when desirable. The outward movement of the clutch S′ is stopped by a shoulder, S^4, on the end of the roller-shaft.

By the means just described it is rendered possible to entirely stop the flow of water to the stone when so desired, as it is evident that when the feed-roller Q′ ceases to rotate, which is the case when the clutch S′ is thrown out of engagement with the pulley S, there can be no water transferred to the taking-roller.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the dampening-rollers, the feed-roller, the taking-roller, the levers Q^4 Q^5, and the pivoted arms *q q′*, form-

ing the bearings for the feed-roller and taking-roller, the counter-shaft, and the adjustable cams of said counter-shaft, which engage the levers, substantially as and for the purpose specified.

2. The combination, with the feed-roller, of the driving-pulley mounted loosely on the roller-shaft, and the sliding clutch keyed to the shaft and constructed to engage the pulley, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

GEORGE P. FENNER. [L. S.]

Witnesses:

EDWARD T. BROWN,

GEORGE COLFAX.