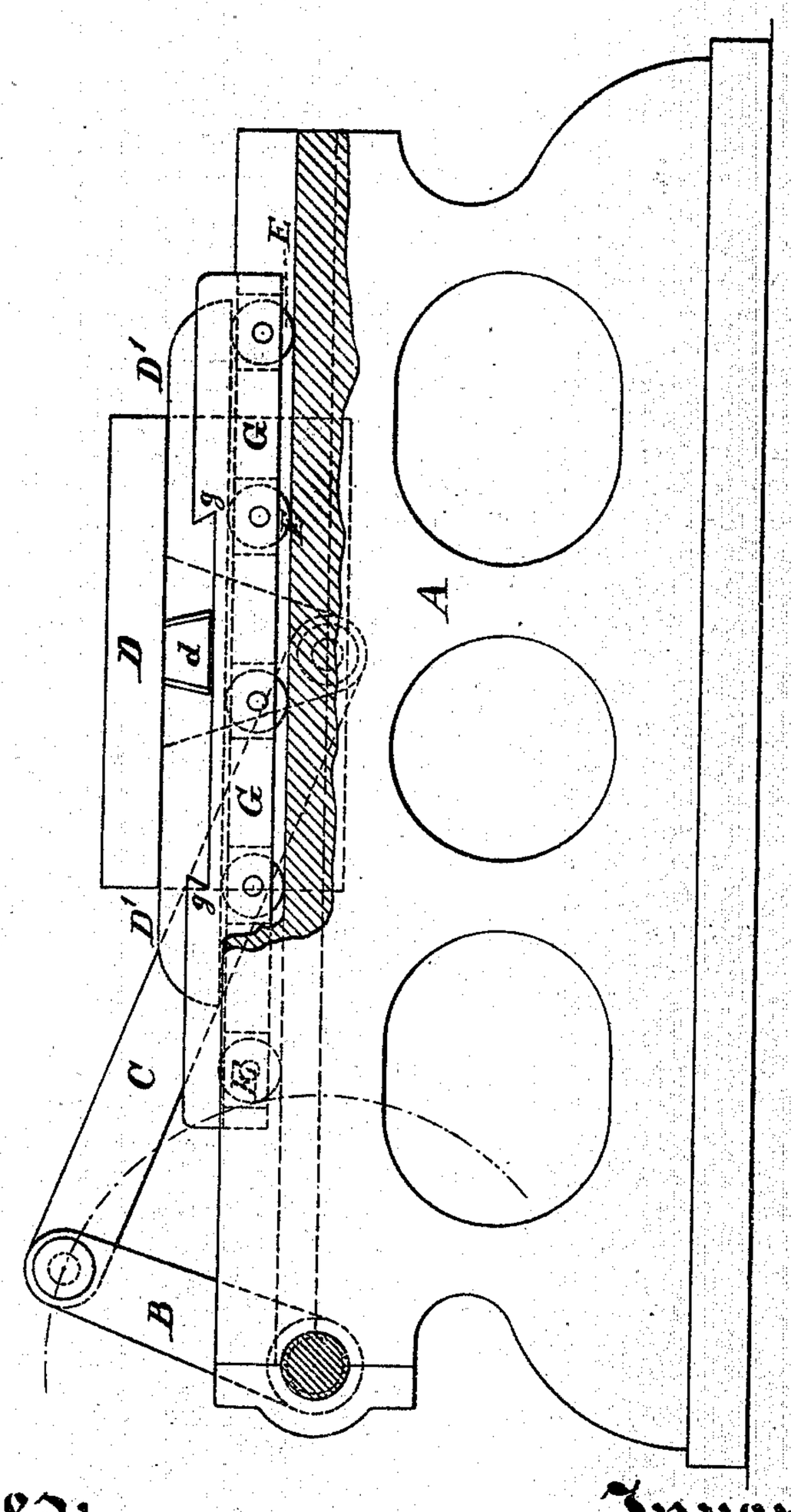
C. POTTER, Jr.

Roller-Carriers of Printing-Press Beds.

No. 146,841. Patented Jan. 27, 1874.



Witnesses:

W. C. Dey

Arnold Hörmann.

Inventor;

C. Potter, Jr.

by his attorneys T. D. Stetson,

UNITED STATES PATENT OFFICE.

CHARLES POTTER, JR., OF NEW YORK, N. Y.

IMPROVEMENT IN ROLLER-CARRIERS OF PRINTING-PRESS BEDS.

Specification forming part of Letters Patent No. **146,841**, dated January 27, 1874; application filed September 8, 1873.

To all whom it may concern:

Be it known that I, CHARLES POTTER, Jr., printing-press manufacturer, of New York city, in the county and State of New York, have invented certain new and useful Improvements Relating to the Slides or Roller-Carriers of Printing-Press Beds, of which the following is a specification:

The flat bed on which the type-form is carried is, in many printing-presses, reciprocated backward and forward on ways being supported on rollers, which rollers are united in sets by firm pieces, so that all are compelled to move together. The distance to which the rollers and their connecting-frames travel at each stroke is, or should be, exactly half that of the travel of the reciprocating bed.

In practice, machinery is liable to be deranged from various causes. The impression is given when the rollers are near one end of their travel, and, for some reason, there is a tendency of the entire sets to work, by degrees, too far toward that end of their path. This can be resisted by end stops, but with such provision the slight sliding motion necessary to rectify the position takes place while the rollers are at the impression end of their motion, and subject to a very heavy load. It is desirable that such rectification be effected at the other end of the motion, if possible. Then the rollers are subject to a much less load. The ordinary end stops are, furthermore, unsatisfactory, because, if the rollers become stuck, from any cause, at or near one end of their path, the bed is liable, in its return motion, to slide too far off the entire set of rollers, and to be broken, or to cause other serious damage. An attempt has been made to overcome this evil by the introduction of gearing which shall mesh into the roller-frame and compel its motion to the right extent. I have discovered that the end can be attained without any such addition to the mechanism.

The following is what I consider the best means of carrying out the invention: I provide simply a stop projecting from the bed at each side, and corresponding stops at the proper distances apart on the roller-frames.

The accompanying drawing forms a part of this specification, and represents a side view of the bed and supporting-ways with the intermediate rollers and roller-frame, and the crank which imparts motion to the bed.

Those parts of the printing-press not here represented may be of any ordinary or suitable character.

A is the supporting-frame of the machine; B, the crank; C, the connecting-rod; and D, the reciprocating bed, which is reciprocated to and fro by the crank and connecting-rod in the ordinary manner. E E are rollers connected by the roller-frame G. The bed D is constructed with long bearing-pieces D′, which are supported on the rollers in the usual manner. The pivots or axes on which the rollers E turn are mounted in the roller-frame in the usual manner, and the frame is constructed in the usual form, except that it is recessed to produce stops, as indicated by the shoulders *g g*. These shoulders are under-cut, as represented, so that a strong contact of the stop on the bed against either of them may not result in a tendency of the bed to lift out of the press. A stop, *d*, is cast or otherwise firmly fixed on the outer face of each bed bearing-piece D′. Its edges are beveled to an extent a little less than the shoulders or stops *g g*, and are faced with sole-leather, or other slightly elastic material, to soften the concussion when it strikes against its proper shoulder.

In operation, the bed reciprocates in its usual manner, and the rollers and their connecting-frames reciprocate quietly to an extent half as great. This action continues so long as all is working perfectly. When, in consequence of any fault, the roller-frame on either side tends to lag behind its proper place, or to remain stuck at either end of its motion, the stop *d* on that side of the bed strikes with its leather-cased edge against the adjacent shoulder *g*, and compels the roller-frame, with its connected rollers, to travel to the proper extent.

By this device the bed remains always properly supported, and complicated mechanism is avoided.

The warning afforded by the noise is always sufficient to indicate to the attendant when the evil from any derangement of the rollers or roller-frames is likely to become serious.

The leather faces can be omitted from the stops to allow a contact of the naked metal,

and additional devices may be employed to give a warning sound, by vibrating tongues or a bell, if such shall, in any case, be deemed desirable.

The bed, with its bearing-pieces, is of such length that the end may be attained with tolerable success by a reversion of the position of the several stops—that is, by putting only one stop at the center of the length of each roller-frame, and having two stops on each side of the type-bed or its bearing-pieces.

I claim as my invention—

The combination of the reciprocating bed D, carrying stops *d*, with the reciprocating roller-frame G and stops *g*, whereby the bed and frame are locked together under certain conditions, as specified.

In testimony whereof I have hereunto set my hand this 3d day of September, 1873, in the presence of two subscribing witnesses.

C. POTTER, JR.

Witnesses:

THOMAS D. STETSON,

WM. C. DEY.