N. ROSS.

Hand Printing-Presses.

No. 134,705. Patented Jan. 7, 1873.

Fig. 1.

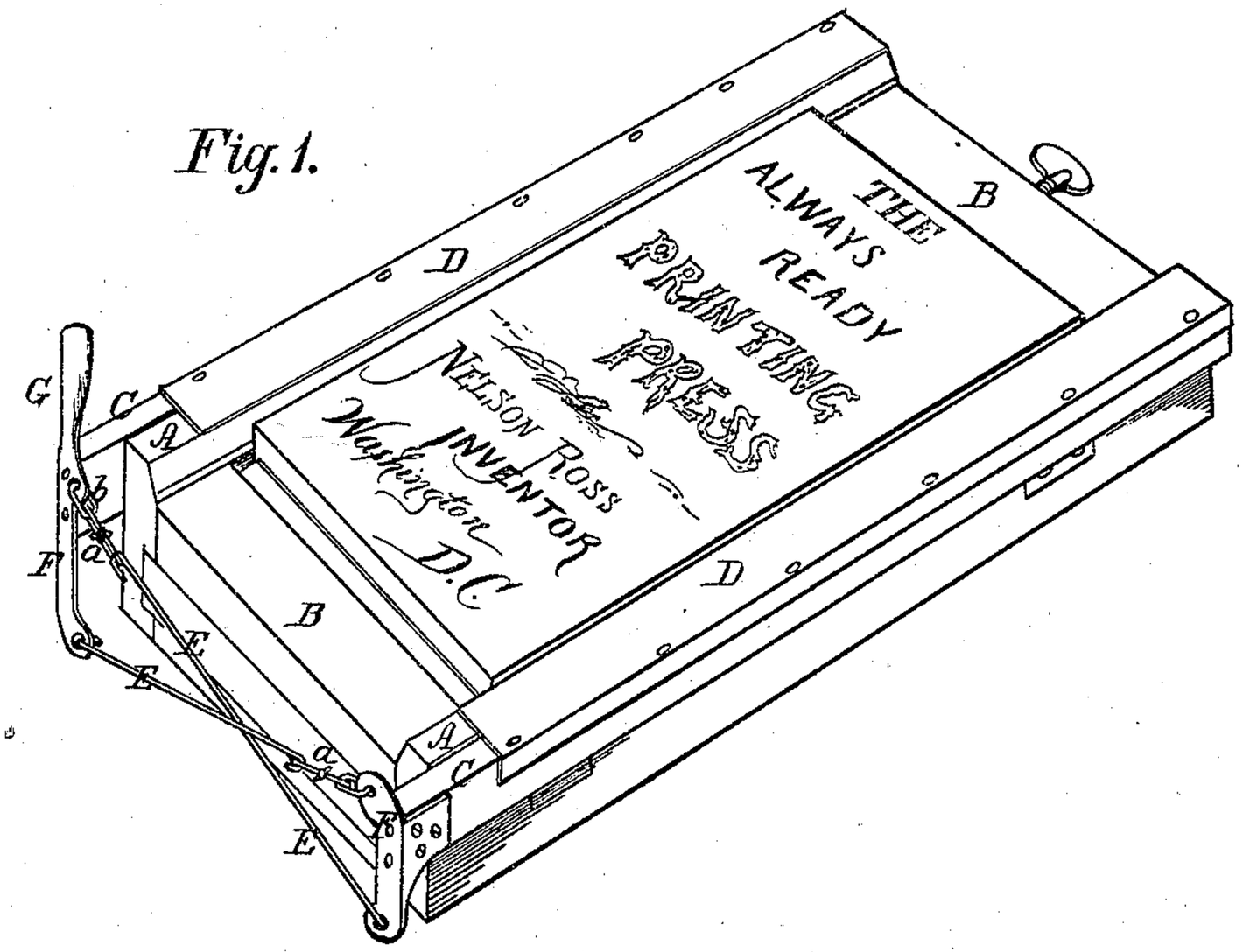


Fig. 2

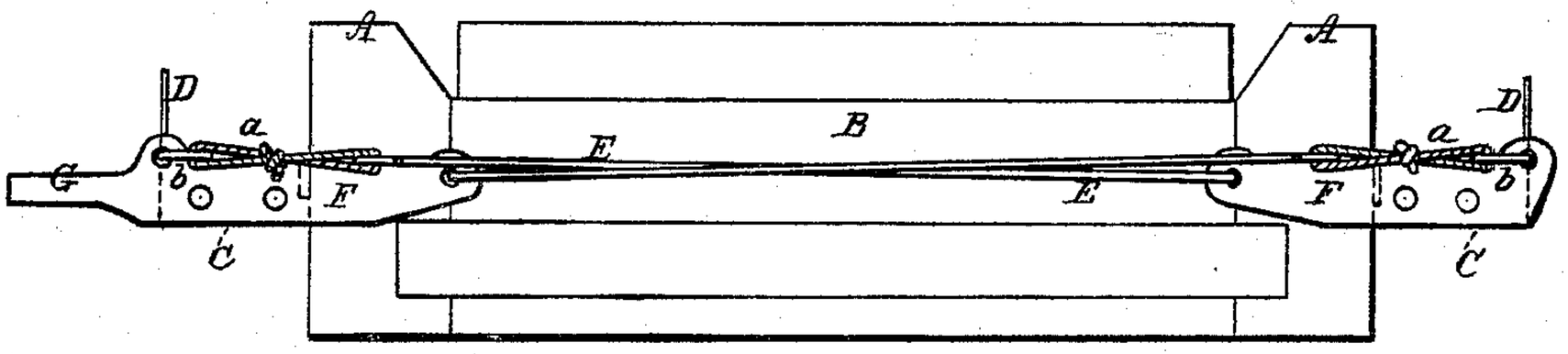
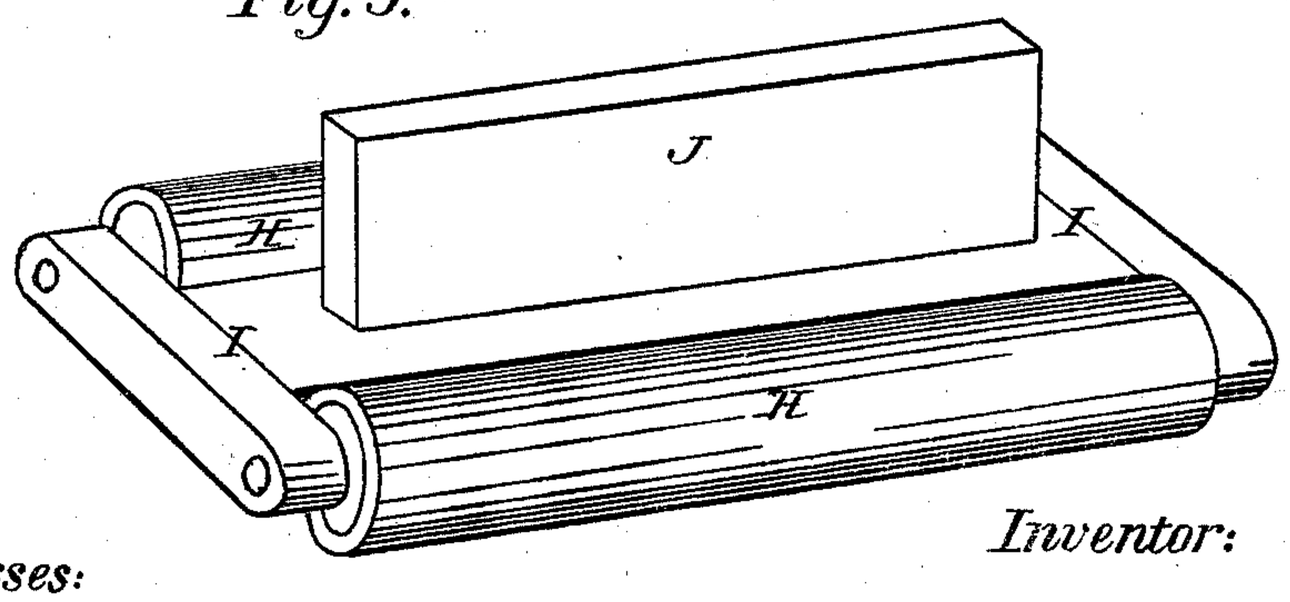


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

NELSON ROSS, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN HAND PRINTING-PRESSES.

Specification forming part of Letters Patent No. **184,705**, dated January 7, 1873.

To all whom it may concern:

Be it known that I, NELSON ROSS, of the city of Washington, in the District of Columbia, have invented certain new and useful Improvements in Hand Printing-Presses, of which the following is a specification:

My invention relates to portable hand-presses designed chiefly for printing circulars, handbills, labels, and general business notices, posters, &c., from type, stereotype, or electrotype plates; and the invention which forms the subject-matter of this patent consists in combining with a type or plate bed having fixed bearers for the impression-rollers hinged or movable bearers for the inking-roller; the object whereof is to protect the impression-bearers and to obtain a type or plate bed frame, with bearers adapted for the separate and distinct manipulation of the impression and inking rollers, in a compact, convenient, and comparatively inexpensive form, requiring only the turning or oscillating movement of one set of bearers to present for use the other set, and thereby render the type-frame complete for either inking the type or making the impression; in the arrangement of the hand-lever and its devices for connecting the movable bearers and operating them simultaneously upon the ends of the fixed bearers and out of the way in manipulating the press; in a hand-impression roller-frame having two elastic rollers, the object whereof is to obtain a hold for the paper, as one roller will assist the other in keeping the paper in place for the proper action of the other, and thereby prevent the puckering, buckling, or displacement of the paper in moving the rollers thereover, and obtain the further advantage of rapidity of work by reason of having a complete impression by moving each roller but half way across the bed, the rollers being for that purpose nearly half the distance apart of the length of the type or plate bed; and, finally, of a hand printing-press and hand-frame of elastic rollers constructed and arranged for joint operation, as will be more fully hereafter described.

In the accompanying drawing, Figure 1 represents a view, in perspective, of a type or plate galley embracing my invention, the inking-bearers being in place for use; Fig. 2 represents an end view of the same, showing the removable inking-bearers turned out of the way; and Fig. 3, a view, in perspective, of the impression hand-roller frame.

The type or plate galley consists of a frame, of suitable material, having parallel fixed side bearers A, connected by end pieces B, between which the type or plates are secured in the usual manner. To the outer sides of the fixed bearers A bars C are hinged so as to form carriers for movable bearers D, secured to the tops of said hinged bars C so as to project therefrom toward each other in a way to overlap the tops of the fixed bearers A when brought into horizontal positions, and thereby constitute removable bearers, having their support, when in use, directly upon the fixed bearers to protect them for the impression-rollers from the action of the inking-roller. The upper surfaces of the fixed bearers A are designed to be on a level with the face of the type or plates used, while the movable bearers D are thin plates of suitable material, the points of connection of said movable bearers being such as to bring the plates D, when turned up, snug upon the fixed bearers. The hinged bearer-bars C project a suitable distance beyond the galley-frame for the attachment of connecting devices, which, in the example shown, are uniting-wires E, joined, by a lacing of cord or fine wire, *a*, and links *b*, to levers F, so as to cross each other to obtain the simultaneous opening and closing of the hinged bearers D, which is done by laying hold of the handle G of one of the levers. The lacing and link connection of the wire strands E is to take up any slack in the wires or from the wear of the parts.

By this arrangement the movable bearers can be easily and quickly brought into and out of position with the fixed bearers. The type or plate galley, with its fixed and movable bearers, thus constructed, is used, in connection with a roller or rollers, H, passed over the paper, to receive the impression by hand. This mode of operation forms the distinguishing feature of my invention, and in carrying it out I employ elastic rollers H mounted in a suitable frame, I, and provided with a handle, J, (or handles,) by which to give pressure and motion to the rollers. The distance between these latter should be about half the length of the galley, for two purposes—viz., to hold and keep the paper in proper position and prevent it from buckling or creasing, holding it square

and smooth, while rendering it only necessary to be moved half way across the bed to effect the result of obtaining the full impression, and thereby strike off impressions with great rapidity and ease.

The handle J of the roller-frame I should be located centrally betwen the rollers H to obtain an equal pressure upon both in moving them over the paper.

The press is simple in construction, very compact, light, and portable; printing with equal facility upon light tissue paper without any change in adjustment of type-plates or parts of press, and requiring only a slight pressure of the hand.

Having described my invention, I claim under this patent—

1. In a hand printing-press galley or type bed, the combination, with the fixed bearers A thereof for the impression-rollers, of movable or hinged bearers D for the inking-roller, to render the type-frame complete for either inking the type or making the impression.

2. The combination of the hand-lever G and its connecting-rods E *b* with the movable bearers D, arranged as described, to effect the simultaneous movement of the latter, as described.

3. In a hand printing-press, the hand-impression device having two sets of elastic rollers, H, and a handle, J, to operate in printing and obtain the advantages herein described.

4. The hand printing-press and hand impression-roller device, constructed and arranged for joint operation as herein described.

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Witnesses:
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