

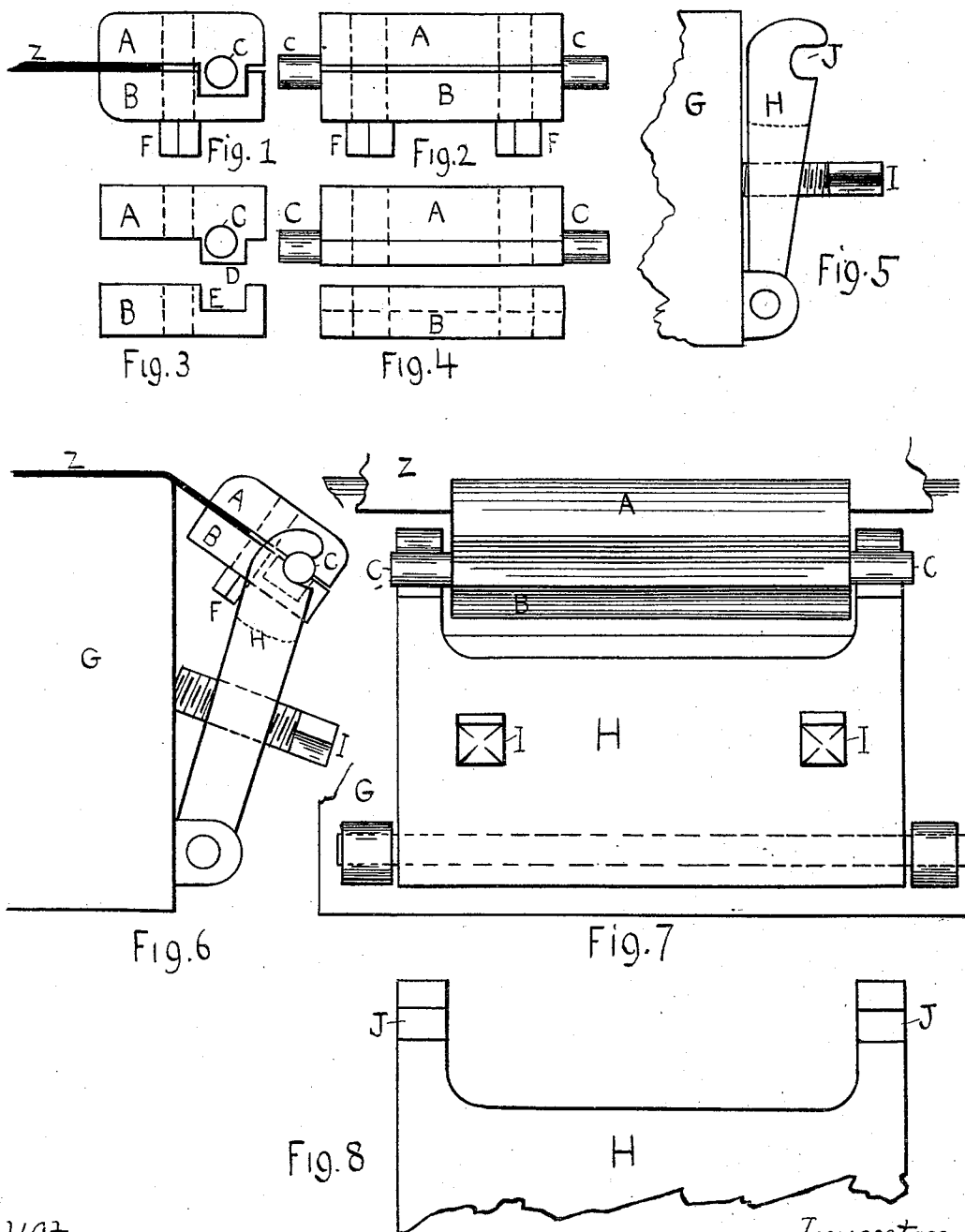
(No Model.)

E. S. JONES.

DEVICE FOR STRAINING ZINC PLATES TO THEIR BEDS.

No. 478,607.

Patented July 12, 1892.



Witnesses
Walter B. Vincent
Joseph H. Flaherty

Inventor
Edward S. Jones

UNITED STATES PATENT OFFICE.

EDWARD S. JONES, OF PROVIDENCE, RHODE ISLAND.

DEVICE FOR STRAINING ZINC PLATES TO THEIR BEDS.

SPECIFICATION forming part of Letters Patent No. 478,607, dated July 12, 1892.

Application filed November 17, 1891. Serial No. 412,214. (No model.)

To all whom it may concern:

Be it known that I, EDWARD S. JONES, of Providence, in the State of Rhode Island, have made certain new and useful Improvements in Devices for Straining Zinc Plates to Their Beds; and I do hereby declare that the followingspecification, taken in connection with the drawings, making a part of the same, is a full, clear, and exact description thereof.

Figure 1 is a side view of clamping-jaws with plate secured between the same. Fig. 2 is a rear view of the same. Figs. 3 and 4 show parts of clamp separated. Fig. 5 shows the straining device. Fig. 6 shows the several parts assembled. Fig. 7 is a rear view of same. Fig. 8 is a rear view of part of mechanism.

The object of my invention is to produce a straining device by which the plate may be more easily and readily adjusted to its bed; and it consists in the construction, arrangement, and operation of the separable mechanism for that purpose hereinafter described.

The devices now in use for straining plates to their beds are attached to and form a part of the bed and its supporting sides. This attachment necessitates the securing and releasing of the plate from the holding-jaws every time it is used. As the same plate may be frequently required, the time and labor expended in fastening and unfastening the clamps is considerable and seriously interferes with the rapidity of the work. To overcome these difficulties, I separate the parts of my device into two divisions, one of which is fastened to and goes with the plate, while the other is attached to and forms a part of the bed, the two divisions being easily and quickly united to operate together in straining the plate.

The clamps are constructed in two parts A and B, Figs. 1, 2, 3, and 4, and are fastened to the opposite edges of the plate at equal distances from each other by means of a screw-bolt F. The co-operation of the parts A and B are more fully insured by an extension D of the jaw A, which fits into a recess E of the jaw B. This operation of attaching the clamps to the plate may be performed before the latter is placed upon the bed, and they may re-

main upon and be removed with the plate when it is taken off.

G, Fig. 5, is the bed, and H the straining-lever hinged thereto and having a hook J at the upper end.

I is a straining-screw working through the lever H and forcing the latter off by means of contact with the supporting side of the bed G. C C are trunnions upon either side of the clamps, and Z is the zinc plate.

The operation of my improved device is as follows: The clamps having been once attached to the plate, as shown in Figs. 1 and 2, and the straining-lever being in the position indicated in Fig. 5, the plate is placed upon the bed and the trunnions C C placed within the hooks J. The lever H is next forced off by turning the screw I, as shown in Fig. 6, in a manner already understood, which brings the plate into close and complete contact with the bed, more or less strain being exerted on the screws, as may be required, to make the plate smooth. Whenever any particular plate is done with, the screw I is turned back, bringing the lever H to a nearly-vertical position, when the trunnions C C may be disconnected from the hooks J and the plate, with its clamps, may be removed and laid away for future use. By means of the trunnions C C, working in the hooks J, the direction of strain is always coincident with the angle of the plate.

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

1. In a straining device for lithographic plates, the combination of a lever H, having a hook J at its upper end, a clamp detachably secured in said hook, the screw I, and the bed G, the whole constructed and operating together in a manner and for the purposes described.

2. The combination of a clamp composed of two parts, one of which parts is provided with a trunnion at each end, a straining-lever having hooks at its upper end adapted to receive the trunnions of the clamp, and means for operating the lever, the whole constructed and arranged to permit of the detachment of the plate from its bed without removing the clamps, as and for the purposes specified.

3. In combination, a bed-plate having a straining-lever permanently secured thereto and a clamp detachably secured to the lever, means for operating the clamp independently
5 of the connection between the clamp and the lever, whereby the clamp may be detached from the lever without releasing its hold upon the plate and without detaching the lever
10 from the bed-plate, and means for operating the lever, substantially as and for the purpose set forth.

4. The clamps A B, constructed with trunnions C C, in combination with the hooked lever H and screw I, the whole constructed and arranged to operate and permit the de-
15 tachment of the plate from its bed, as described.

EDWARD S. JONES.

Witnesses:

WALTER B. VINCENT,
JOSEPH H. FLAHERTY.