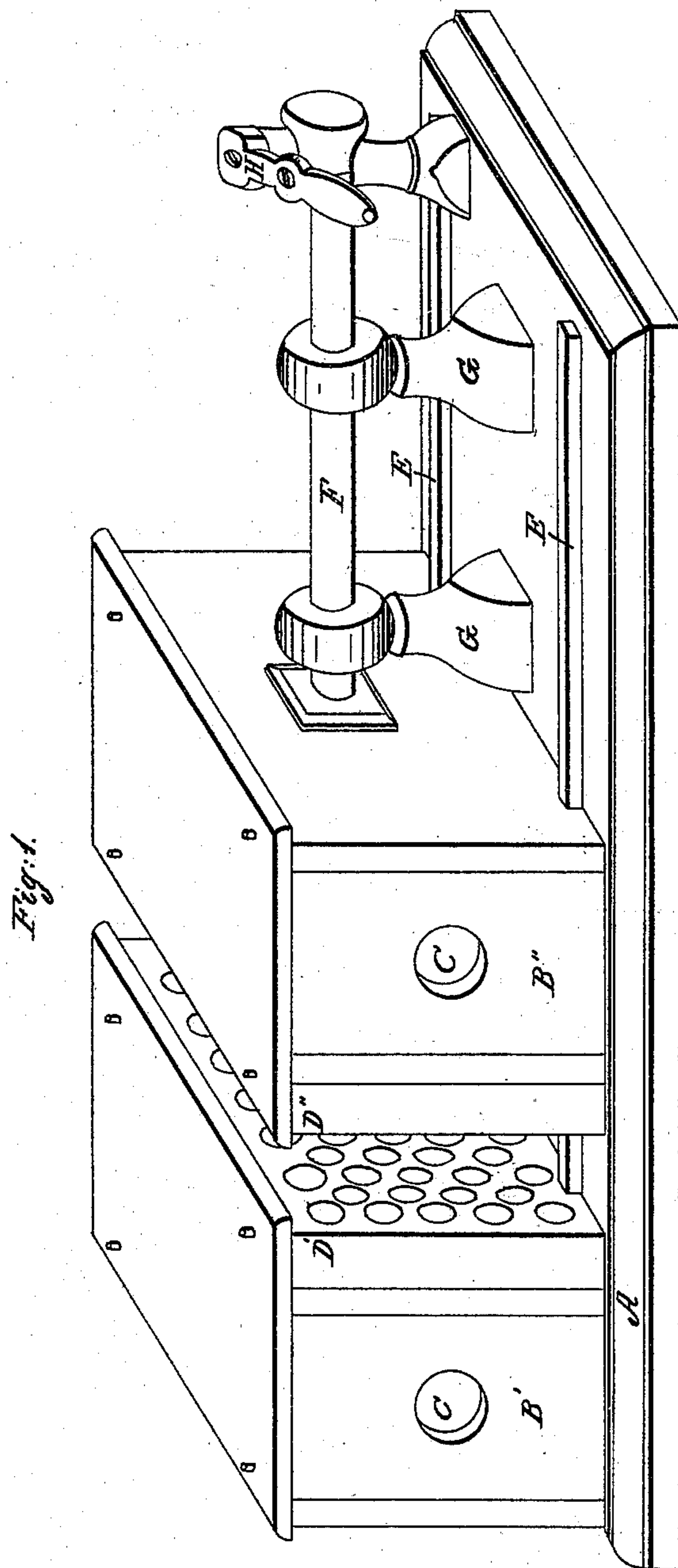


H. A. SEYMOUR.
Hardening Steel Plates.

2 Sheets—Sheet 1.

No. 17,172.

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Fig. 3.

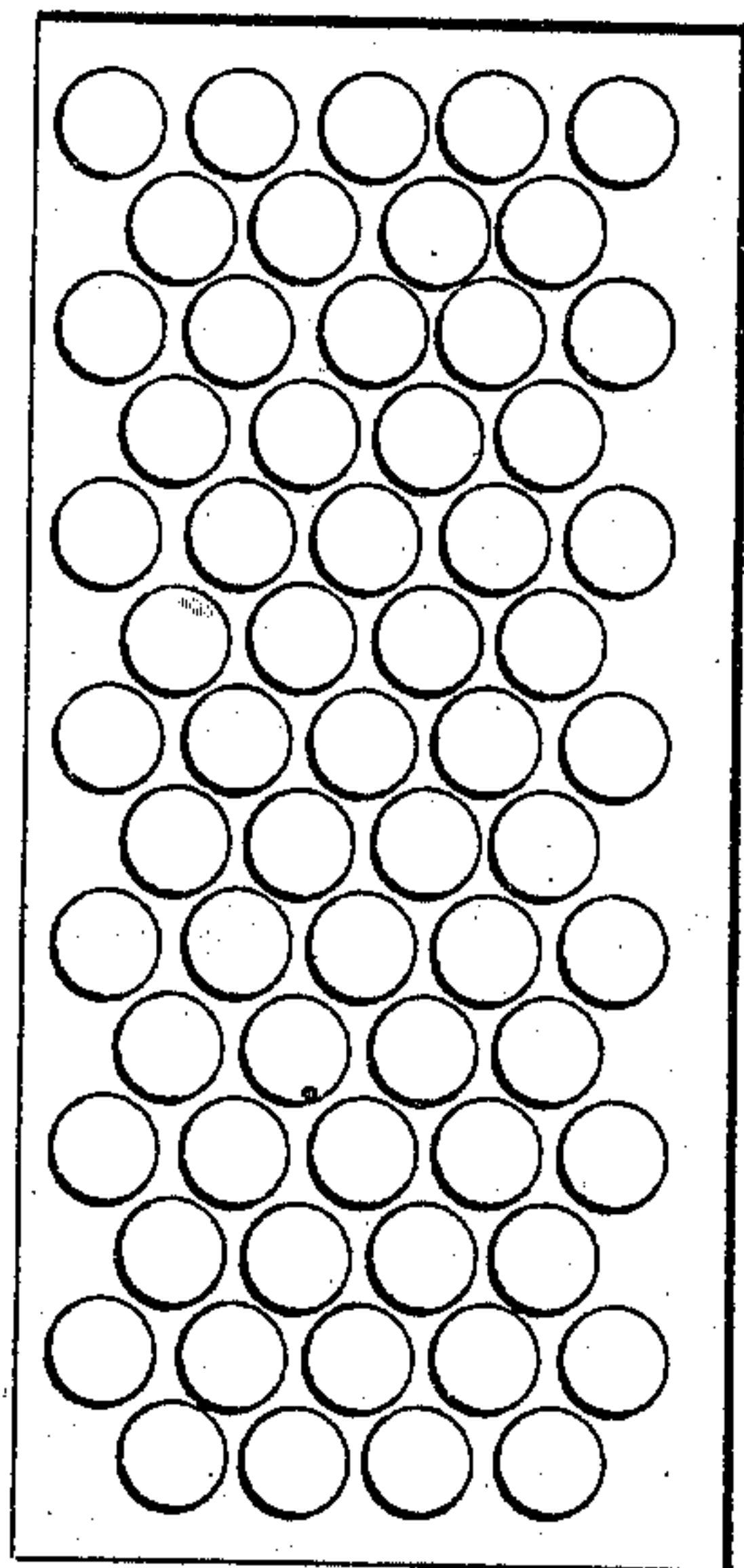
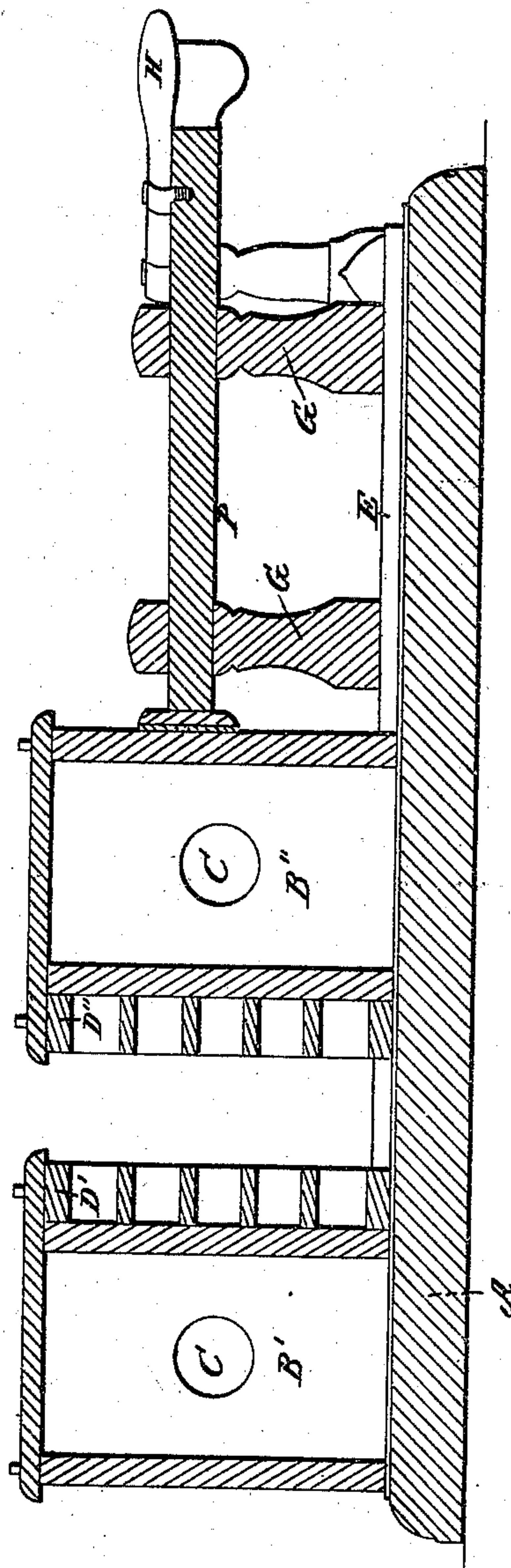


Fig. 2.



UNITED STATES PATENT OFFICE.

HENRY A. SEYMOUR, OF BRISTOL, CONNECTICUT.

TEMPERING STEEL PLATES.

Specification of Letters Patent No. 17,172, dated April 28, 1857.

To all whom it may concern:

Be it known that I, HENRY A. SEYMOUR, of Bristol, county of Hartford, and State of Connecticut, have invented a new and useful Improvement in Hardening or Tempering Steel Plates; and I do hereby declare that the same is described and represented in the following specification and drawings, clear and plain, to enable others skilled in the art to make and use the same.

I will proceed to describe the construction and operation, referring to the drawings in which the same letters indicate like parts in each of the figures.

The nature of my improvement consists in constructing two water circulating boxes, one secured upon the end of a bed plate, the other arranged upon tracks or rails, and are made to move back and forth by a lever, or other mechanical devices, and attaching perforated plates to the two parallel sides of the boxes, which come together. Said perforations in the plates are filled with preparations ordinarily used for hardening or tempering. The plate to be operated upon is first heated to the proper or desired temperature, then placed between the perforated plates, which are brought closely together and held sufficient length of time to impart the required hardness or temper.

In the accompanying drawings, Figure 1, is an isometrical view of my improvement; Fig. 2, is a sectional view.

A, is a bed plate on which the operating parts are placed.

B, B, are the water circulating boxes, each of which are provided with an inlet and outlet, C, C, through which the water is admitted and discharged by means of flexible hose or metallic pipe.

D, D, are metallic perforated plates.

E, E, are track or rails, on which the advancing and receding perforated plate and water box D, D, make their movements.

F, is a connecting rod, by which the power is communicated to the water box B.

G, G, are guides for the connecting rod F.

H, is a lever by which the machine is operated, and will be found sufficient for small machines, but it is anticipated that further facilities will be required in the use of heavy machines.

Fig. 3, is a face view of the perforated plates, which is represented with a flat surface, and showing the perforations which may be made of larger or smaller dimensions as circumstances require. I also propose to make those plates sometimes concave and convex, or of such form and shape as will be found useful in the use of my improvement.

To the discerning mechanic the utility and advantages of this machine will be at once apparent; the circulation of water, constantly passing through the boxes, will keep the plates cool.

The ease with which the work may be placed in the machine, to receive the hardening or tempering properties, and giving the eye an opportunity to detect any derangement, in the operation, and quickly stay the operation, before further injurious effects were produced; also, the manner of the machine's construction is such that it does not become stationary, but may be placed to suit convenience, while in use, and may be easily removed as circumstances require.

What I claim therefore and desire to secure by Letters Patent is—

The employment of the perforated plates D, D, and the water cooling boxes, B, B, substantially in the manner and for the purpose, as herein set forth and described.

HENRY A. SEYMOUR. [L. s.]

Witnesses:

BENJ. F. HAWLEY,
FRANKLIN DOWNS.