

A. SPENCER.  
Air-Compressor.

No. 214,465.

Patented April 15, 1879

Fig 1.

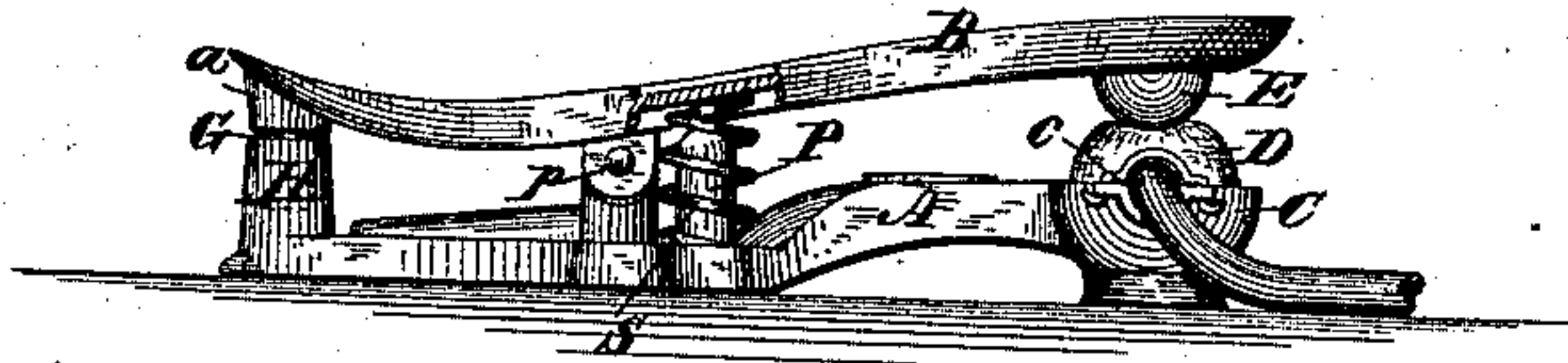
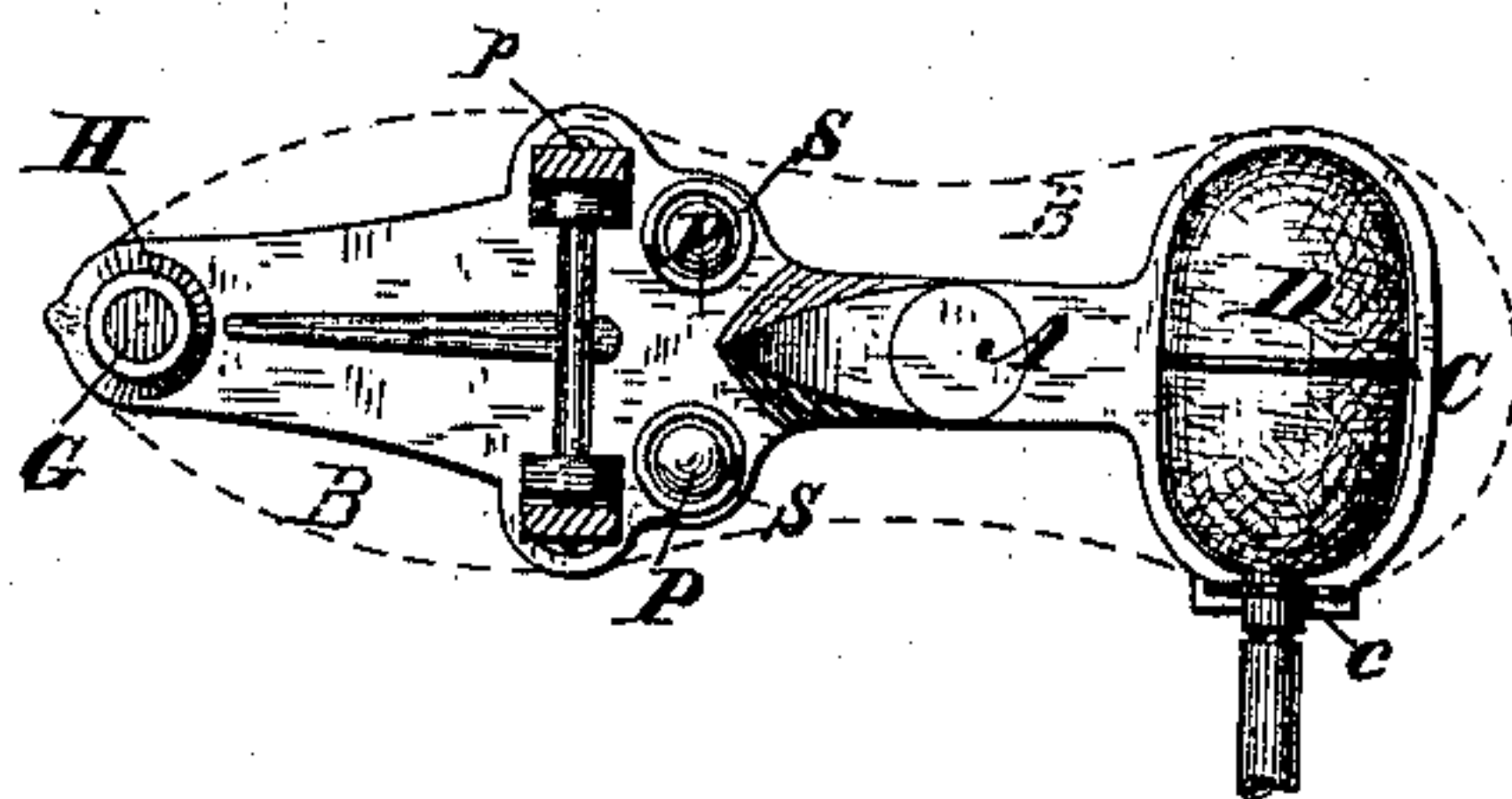


Fig 2.



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN AIR-COMPRESSORS.

Specification forming part of Letters Patent No. **214,465**, dated April 15, 1879; application filed September 17, 1878.

*To all whom it may concern:*

Be it known that I, ALLEN SPENCER, of Columbus, in the county of Franklin and State of Ohio, have invented a new and Improved Air-Compressor for Pneumatic Dental Pluggers; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side view, partly in section, of the invention; and Fig. 2, a top-plan view of the base-piece of the treadle, the form of the rocking portion being shown by dotted lines.

Similar letters of reference in the several figures indicate the same parts.

This invention has for its object to provide a simple and effective apparatus for compressing air for pneumatic dental pluggers; and it consists, primarily, of a treadle composed of a stationary base-piece and a rocking portion mounted thereon, the base-piece having a recess or cavity of suitable form to receive and hold an india-rubber bulb, and the rocking portion being provided with a convex compressing-surface adapted to compress the bulb when the treadle is operated; and, secondly, in an arrangement of reacting springs and a noiseless stop or buffer, all which I will now proceed to describe.

In the drawings, A represents the base-piece of the treadle, constructed preferably of cast-iron, and of the general form shown in Fig. 2. B is the upper portion of the treadle, also of cast metal, and of suitable form to accommodate the foot of the operator.

The part B is pivoted to the base A at *p*, and can be easily rocked by the pressure of the operator's foot.

The base A is formed with a recess or cavity, C, at its rear end, which is adapted to receive and hold an india-rubber compression-bulb, D, one end being cut away at *c* to admit the neck of the bulb.

E is a convex oval boss or projection formed on the rocking plate B at a point immediately over the bulb D. By thus confining the bulb in the cavity D, and making the pressure-surface of the rocking plate B of convex or rounded form, the bulb is more easily and quickly compressed, and a sharper blow given to the plugger, than if the bulb were compressed between flat surfaces, as has been the custom heretofore.

P P are projections or studs cast on the base A in rear of the pivotal point *p*, and S S are coiled springs surrounding said studs, and exerting their pressure to force the part B away from the base A.

An elastic buffer, G, is inserted in a socket, H, at the forward end of the base-piece, and receives the concussions of a boss, *a*, on the toe of the part B, produced by the recoil of the springs S S when the treadle is worked by the foot of the operator.

The operation of the invention is obvious. The operator, by the pressure of his foot on the plate B, assisted by the recoil of the springs S S, is enabled to rapidly compress the bulb C and impart a succession of quick, sharp blows to the plugging-instrument, while the buffer G at the toe of the treadle takes up the concussion produced by the recoil of the springs, and renders the working of the device comparatively noiseless.

The connection between the bulb and the plugging-instrument is effected by means of ordinary flexible tubing, in the well-known manner.

I claim as my invention—

1. An air-compressing apparatus for dental pluggers, consisting of a base-piece, A, provided with a cavity, C, for the reception of an elastic bulb, and a rocking plate, B, having a convex pressure-surface, substantially as described, for the purpose specified.

2. In combination with the base A and rocking plate B, the springs S S, mounted on the projections P P, substantially as described, for the purpose specified.

3. The buffer G, in combination with the base A, rocking plate B, and springs S S, substantially as described, for the purpose specified.

4. The air-compressing apparatus herein described, consisting of the base-piece A, having the bulb-cavity C, projections P P, and buffer-socket H, the rocking plate B, pivoted to the base-piece, and having the convex or rounded compression-surface E, and the springs S S, all arranged and operated in the manner set forth.

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Witnesses:

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