W. F. BAADE & A. W. SANGSTER.

Alphabet-Cases.

No. 156,868. Patented Nov. 17, 1874.

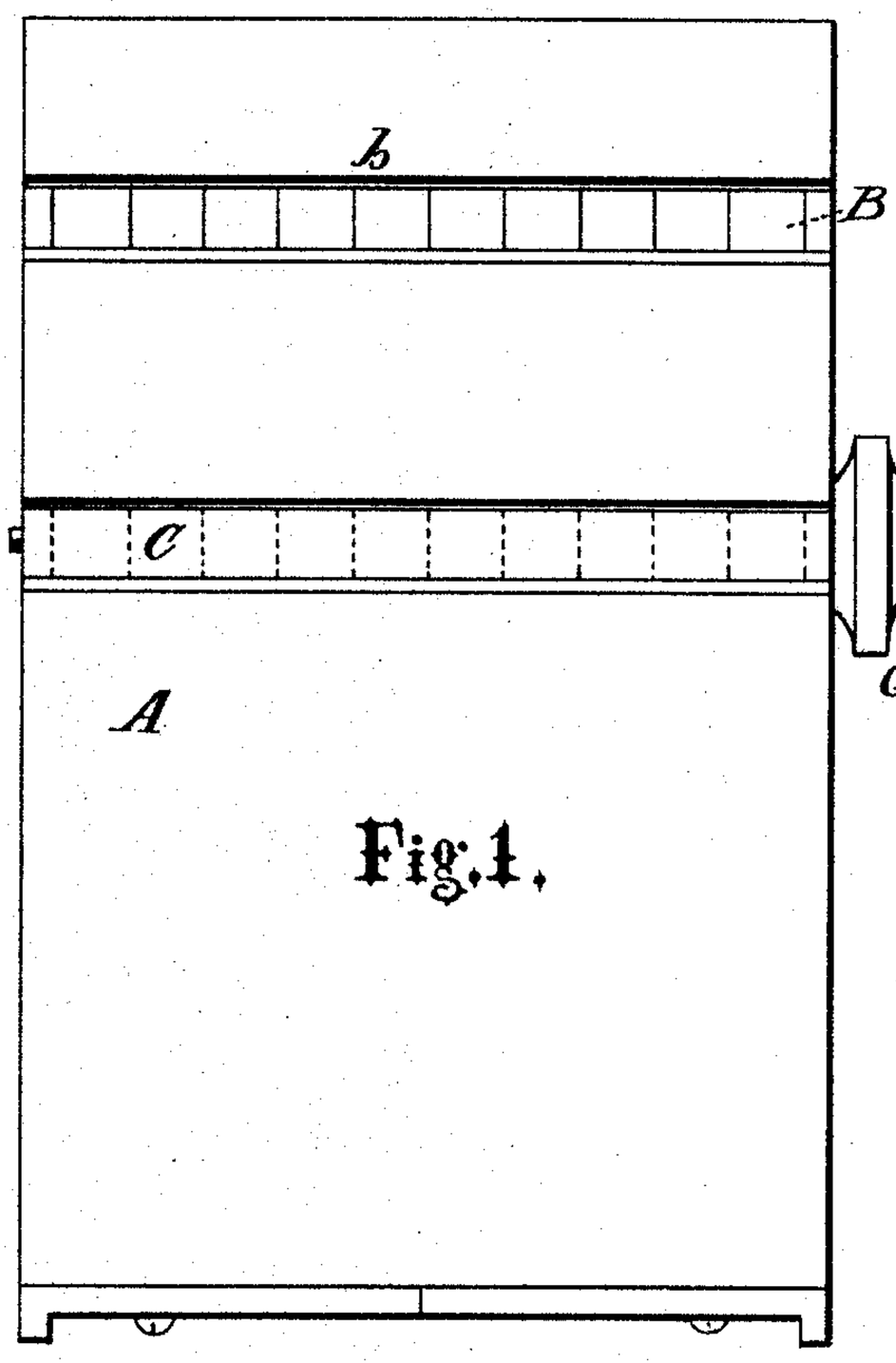


Fig. 1.

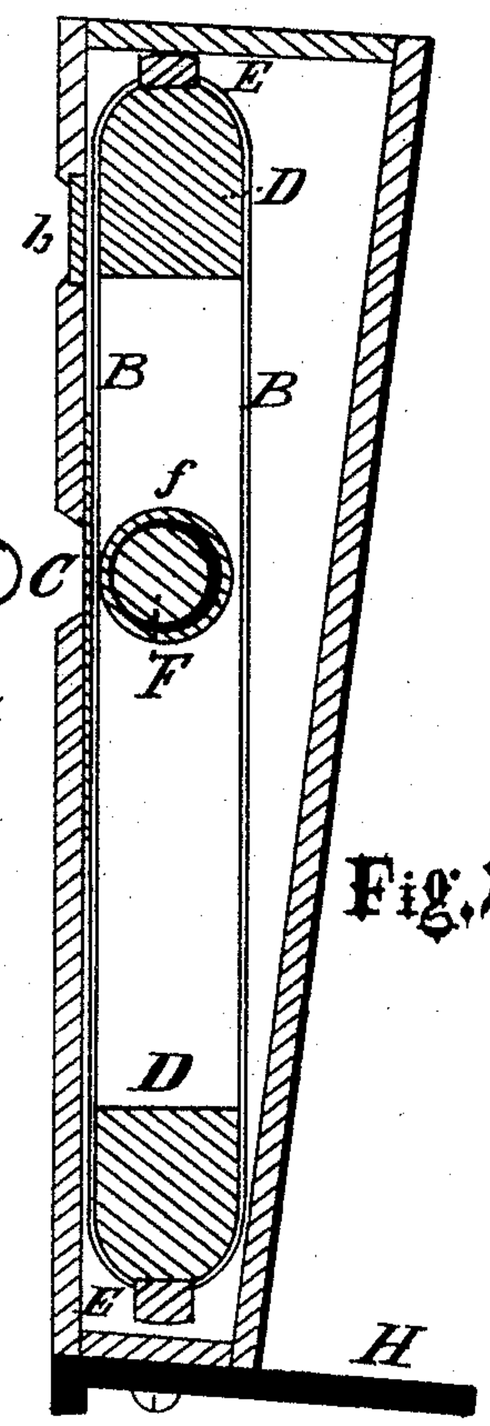


Fig. 2.

Fig. 3.

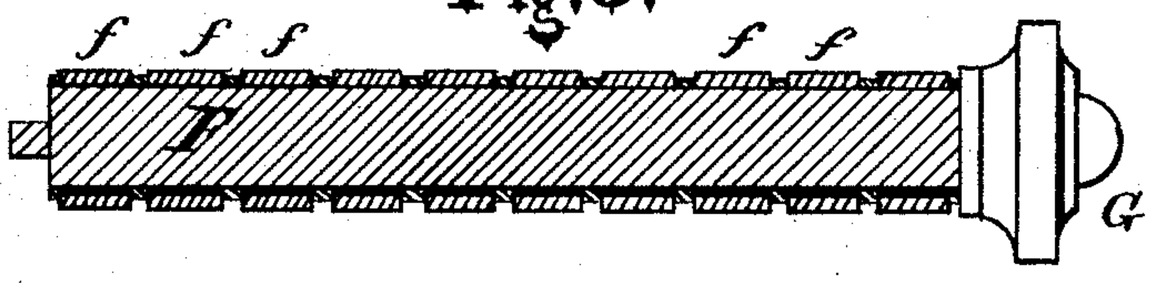
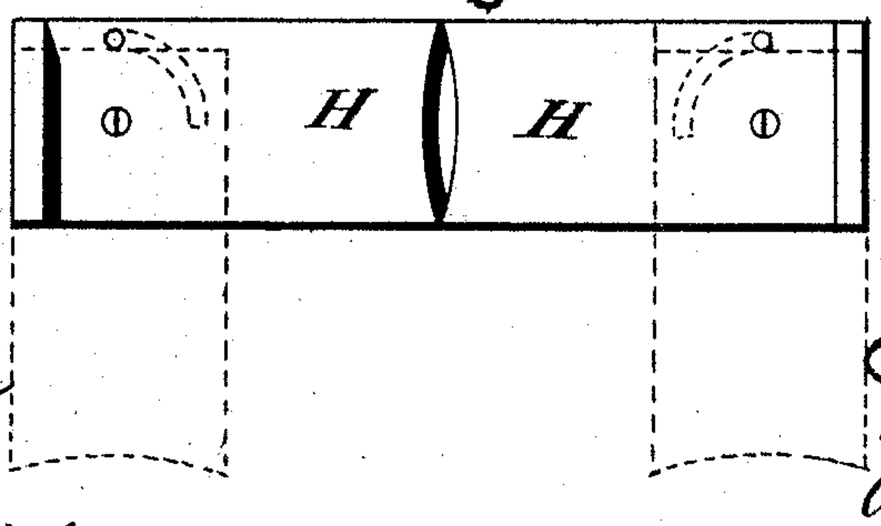


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM F. BAADE AND AMOS W. SANGSTER, OF BUFFALO, NEW YORK, ASSIGNORS TO WILLIAM F. BAADE, OF SAME PLACE.

IMPROVEMENT IN ALPHABET-CASES.

Specification forming part of Letters Patent No. **156,868**, dated November 17, 1874; application filed September 21, 1874.

To all whom it may concern:

Be it known that we, WILLIAM F. BAADE and AMOS W. SANGSTER, of the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Alphabet-Cases, of which the following is a specification:

Figure 1 represents a front view; Fig. 2, a vertical longitudinal section; Fig. 3, a longitudinal section through the roller and elastic rings for moving the alphabelt-belts. Fig. 4 represents a bottom view of the case.

The nature of our invention consists of the following elements: First, a series of endless alphabelt-belts arranged upon stationary supports having guideways or pieces for keeping them apart, so that they will not cross each other or run together while being operated; second, an elastic diaphragm arranged above the endless belts, and a roller arranged below or within the same, having a series of elastic rings fitted thereto, or in grooves thereon, corresponding in number with the endless belts, so that one of said rings will be just below the surface of each belt, the whole being arranged and combined for joint operation, as will be more clearly hereinafter shown; third, in combining with the case an adjustable or folding foot piece or support, arranged so that the bottom or base may be expanded so as to give a better support to the case when in use, or easily placed out of the way when not in use.

In the accompanying drawings, A represents the case; B, the alphabet-belts; *b*, the opening in the front of the case through which the letters are exposed; C, the elastic diaphragm, which is placed above the belts, as shown. D D are the supports for the alphabet-belts, and upon which they are moved. E represents small thin pieces which project from said supports, which are stationary, and up between said belts so as to keep them apart. F is the roller for moving said belts. *f* the elastic rings thereon. G is a handle or crank for turning it. The elastic rings are fitted loosely to the roller F, so as to avoid friction as much as possible. This will permit the roller F to turn easily within said rings, until pressure is brought against it, but, if desired, sad rings C may be fastened permanently or rigidly to said roller. H represents the movable foot-step. In Fig. 2 it is represented in position for supporting the case, and in Fig. 4 it is shown folded under the bottom, the dotted lines representing the position shown in Fig. 2.

The operation of our invention is as follows: The lower surface of the diaphragm is made smooth, so as to avoid friction as much as possible on the belts which move under it. By pressing on said diaphragm over any belt it is desired to move, and turning it and the belt in close contact with the elastic ring below it on the roller, where the friction is the greatest, it will be readily seen that a movement of the roller will move the belt while so held against it, causing it to slide under the diaphragm, where the friction is less. If desired, the rings *f* may be dispensed with, and the entire surface of the roller covered with the same.

We claim—

1. In an alphabet-case, the combination of the elastic diaphragm C, endless alphabet-belts B, supports D D, elastic rings *f*, roller F, and handle or crank G, substantially as and for the purposes specified.

2. An alphabet-case provided with the foot-piece H, all combined and arranged, substantially in the manner and for the purposes set forth.

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Witnesses:

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