A. H. AFFLECK.

Piano Tuning-Keys.

No. 140,450. Patented July 1, 1873.

Fig. 1.

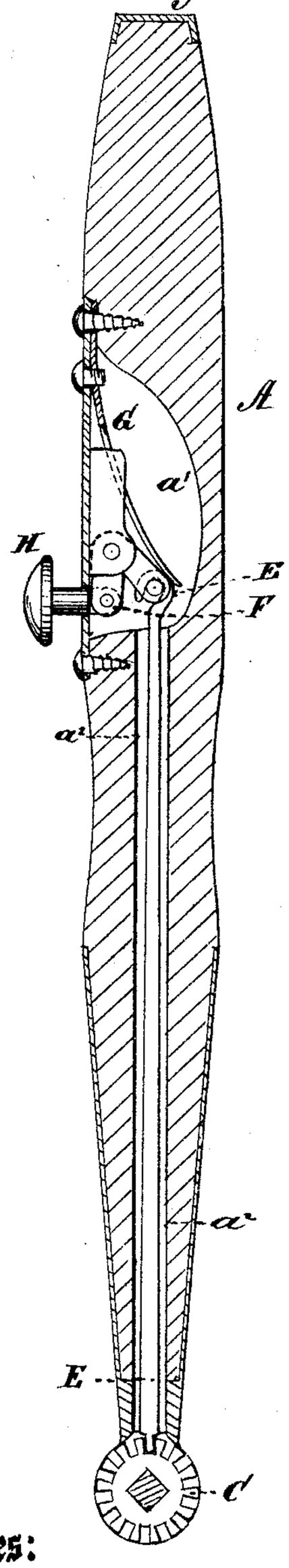
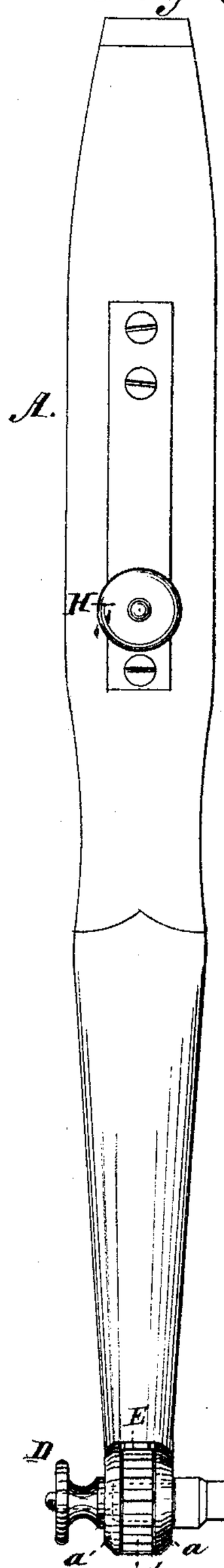


Fig. 2.



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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

ALEXANDER H. AFFLECK, OF MARSHALLVILLE, GEORGIA.

IMPROVEMENT IN PIANO-TUNING KEYS.

Specification forming part of Letters Patent No. **140,450**, dated July 1, 1873; application filed April 11, 1873.

To all whom it may concern:

Be it known that I, ALEXANDER H. AFFLECK, of Marshallville, in the county of Macon and State of Georgia, have invented a new and useful Improvement in Piano-Tuning Key; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification:

The invention relates to tuning-keys for pianos; and the invention consists in one so constructed that no matter in what position the squared top of pin may be the handle can be quickly rotated, so as to give a good purchase and a convenient hold.

Being a professional tuner for twenty years, I have experienced the extreme inconvenience of the ordinary tuning-hammer, which produced great fatigue and failed to admit of that nicety of adjustment required.

In the drawing, Figure 1 is a side elevation, and Fig. 2 a longitudinal section.

A represents the handle, which has the concavity a^1 and the bifurcations *a a*. Transversely through the latter passes the upper end of key B, which carries, on a square part thereof, the pinion C. D is a thumb-screw, which secures the key in its place, and E a detent, which fits between the spurs of pinion, and prevents the pinion, with key attached, from turning in either direction. The detent E is preferably fitted in a long chamber, a^2, and connected at its rear end with an elbow-lever, F, pivoted to a stud, *f*. It may, however, be on the outside. G is a spring, which forces the detent E into and holds it to the pinion C. H is a thumb-presser pivoted to the elbow-lever F and working against the spring G.

The application is as follows: As soon as the tuner fixes his eye upon the pin upon which he is about to operate he rests the key upon the top of the pin, holding the handle lightly and turning it to the left until the key properly adjusts itself on the pin. He next bears his thumb upon presser H, which has the effect to withdraw the detent E and release the pinion. Then, with a sweep of the handle to the right, he reaches the position desired. He then removes the thumb from presser H, which allows the detent to enter between spurs of pinion. The key being then held fast in the handle, he is ready for his work.

With this device the tuner can stand erect even with the largest square piano without the back strain which has heretofore seemed a necessary consequence of and inseparable from the operation.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The presser H, lever F, spring G, detent E, and pinion C, combined with a key, B, and all constructed and arranged as and for the purpose described.

ALEXANDER H. AFFLECK. [L. S.]

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