

No. 680,926.

Patented Aug. 20, 1901.

W. KLINDER.
TUNING HAMMER.

(Application filed Apr. 20, 1901.)

(No Model.)

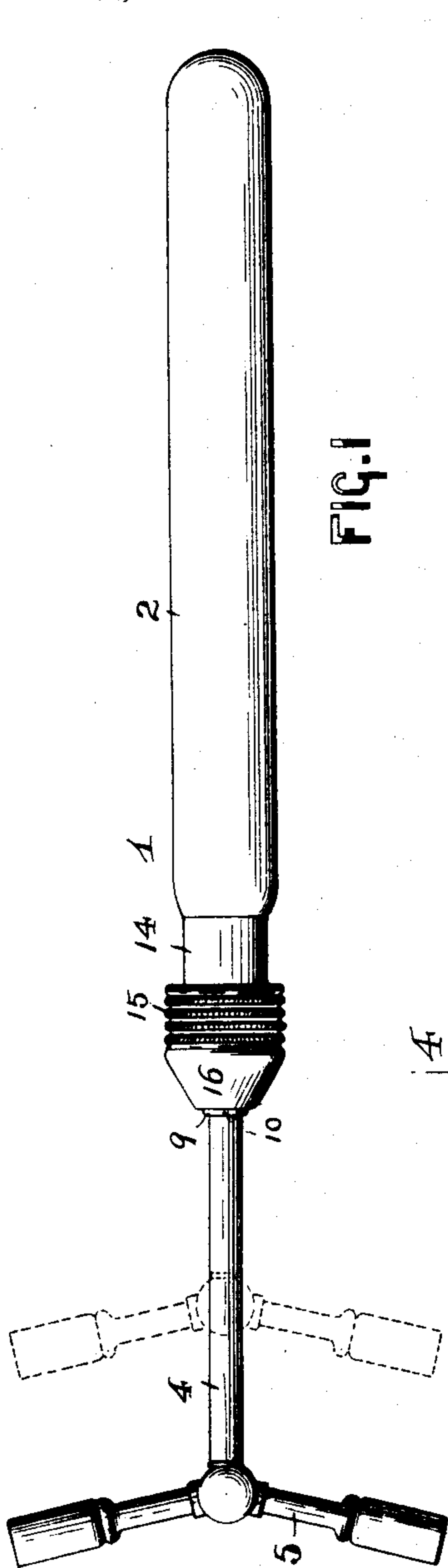


FIG. 1

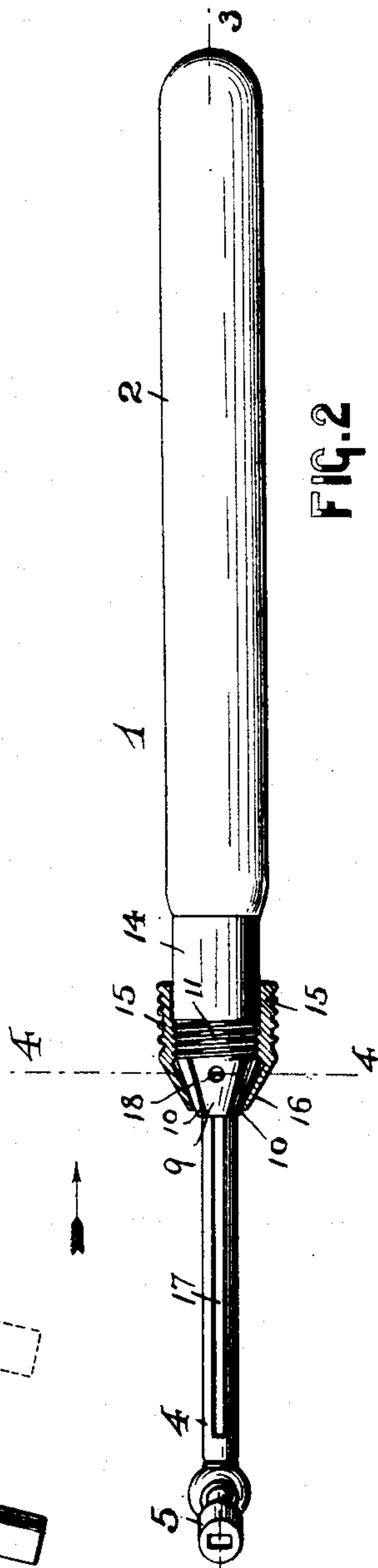


FIG. 2

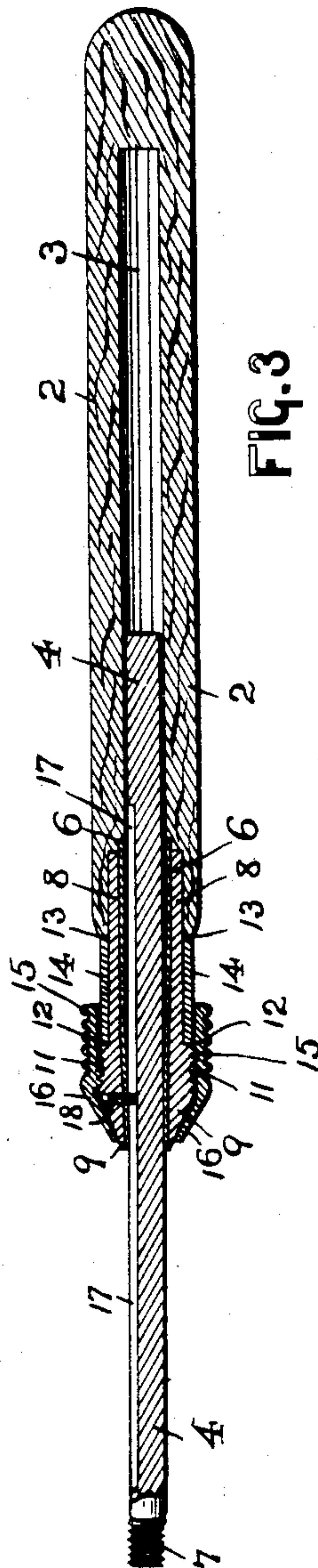


FIG. 3

WITNESSES:
Geo. S. Richards
Joseph Salmon.

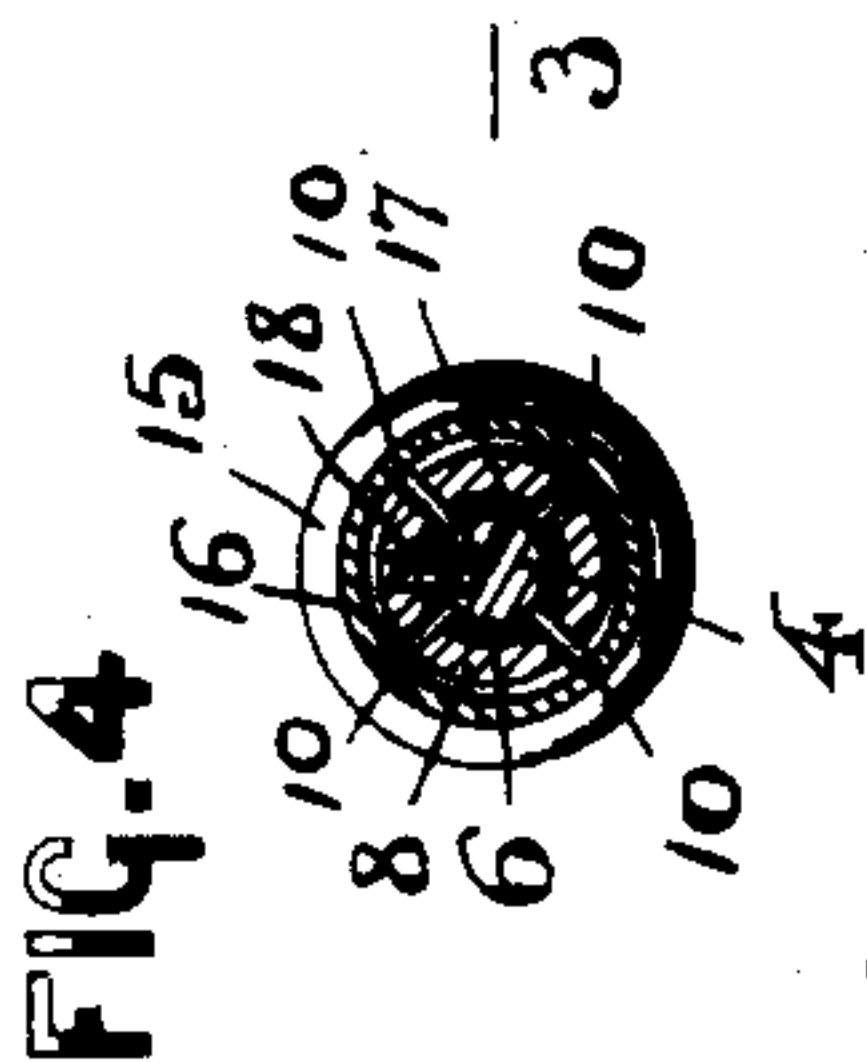


FIG. 4

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TUNING-HAMMER.

SPECIFICATION forming part of Letters Patent No. 680,926, dated August 20, 1901.

Application filed April 20, 1901. Serial No. 56,676. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM KLINDER, a citizen of the United States, residing at Parkview, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Tuning-Hammers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to numerals of reference marked thereon, which form a part of this specification.

This invention has reference to improvements in tuning-hammers for pianos and other stringed instruments, such tool or hammer being provided with a key-head having a receiving socket or sockets adapted to be placed over the end of a stud or pin to which the musical string is secured for the turning of the said stud or pin to tighten or loosen the string while tuning the musical instrument.

The principal object of this invention is to provide a tuning hammer or tool the key-head of which is adjustably connected with the handle of the tool by means of a shank arranged to slide in and out from the hollow handle and is provided with means for locking or holding the shank in its adjusted position.

It is the further object of my invention to provide a tuning hammer or tool of this character in which the assembled parts are few and are of a cheap and simple construction, the adjustment of the shank and key-head being readily accomplished, whereby the same tool can be used in tuning the strings of upright pianos, where a short shank is desirable, as well as in the tuning of the strings of the grand pianos, when it is necessary to use a tuning-hammer with a very long shank.

The invention therefore consists in the novel construction of tuning hammer or tool hereinafter set forth; and, furthermore, the invention consists in the several novel arrangements and combinations of the various parts, to be fully described in the following specification and by means of which the adjustable arrangements and the locking or holding the shank and its head in their proper positions are accomplished.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the tuning-hammer embodying the principles of this invention. Fig. 2 is a top view of the same with the locking or holding means represented in section. Fig. 3 is a longitudinal vertical section of the tool, taken on line 3 3 in Fig. 2 and with the key-head detached; and Fig. 4 is a cross-section taken on line 4 4 in said Fig. 2 looking in the direction of the arrow in said figure.

Similar numerals of reference are employed in all of the said above-described views to indicate corresponding parts.

In the said drawings, 1 indicates the complete tuning hammer or tool, the essential features of which are a handle 2, of wood or any other suitable material, which is provided with a chamber 3 for the reception of a sliding shank 4, provided at its outer end with a suitable key-head 5, which is secured upon the said end of the shank 4 by being secured upon the screw-thread 7 of said end. Of course it will be understood that the said key-head may be of any suitable form and construction and may be otherwise secured to the said end of the shank. The forward end portion of the chambered or tubular portion 3 of the handle is of a slightly-increased diameter over the remaining tubular portion of the handle, and suitably secured in said enlarged tubular end portion and so as to project from the end of the handle 2 is a ferrule 6, preferably made of a thin metal, such as brass or any other metal suitable for the purposes of this invention. Suitably arranged upon this inner ferrule 6 is a holding-sleeve 8, the rear end portion of which is also made to extend into the enlarged tubular portion of the chamber 3 in said handle 2, as clearly illustrated in Fig. 3 of the drawings. The forward end of the said sleeve 8 is made with a cone-shaped head or enlargement 9, provided with longitudinally-extending slits or saw-cuts 10, which extend back to a screw-thread 11, formed upon the outer cylindrical surface of the said head or enlargement 9. Between a shoulder 12 of said head and the end 13 of the handle 2 is a ferrule 14, and operatively arranged upon the said screw-thread 11 is a lock-nut 15, the said nut having its rear end slidably arranged

over a portion of the said ferrule 14, and the forward end of the nut being made cone-shaped, as at 16, the said cone-shaped portion 16 of said nut being fitted over the slitted cone-shaped part of the head or enlargement 9, as illustrated, and causing the sections or holding-jaws of the said head or enlargement 9 to be brought in firm and locked engagement with any portion of the shank 4 when the said nut is tightened upon the screw-thread 11. When the said nut 15 is slightly unscrewed, then the shank 4 and its key-head 5 can be brought in any adjusted position as may be desired and the nut again tightened to lock the shank in such adjusted position, as will be clearly understood.

To prevent the turning of the shank 4 in the tubular portion or chamber 3 of the handle 2, the said shank is provided with a longitudinally-extending groove or channel 17, into which extends the free end of a short screw stud or pin 18, secured in the cone-shaped portion of the head or enlargement 9, as illustrated.

I am fully aware that some slight changes may be made in the details of the construction of the several parts of the herein-described tool without departing from the scope of my present invention. Hence I do not limit my invention to the exact arrangements and combinations of the parts as herein de-

scribed and illustrated in the drawings, nor do I confine myself to the exact details of the construction of the said parts.

Having thus described my invention, what I claim is—

The herein-described tuning-hammer, comprising, a handle having a tubular portion, a ferrule 6 in the forward end of said tubular portion having a part of the ferrule extending from the end of said handle, a sleeve 8 on said ferrule 6, a slitted cone-shaped head on said sleeve provided with a screw-thread, a cone-shaped nut on said head and the screw-thread thereof, and a shank provided with a key-head, said shank being slidably arranged in said ferrule 6 and in the tubular portion of the handle, the said shank being provided with a longitudinally-extending groove, and a pin secured in said slitted cone-shaped head, having its free end extending into said groove in the shank to prevent turning of the said shank, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 17th day of April, 1901.

WILLIAM KLINDER.

Witnesses:

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