No. 614,735.

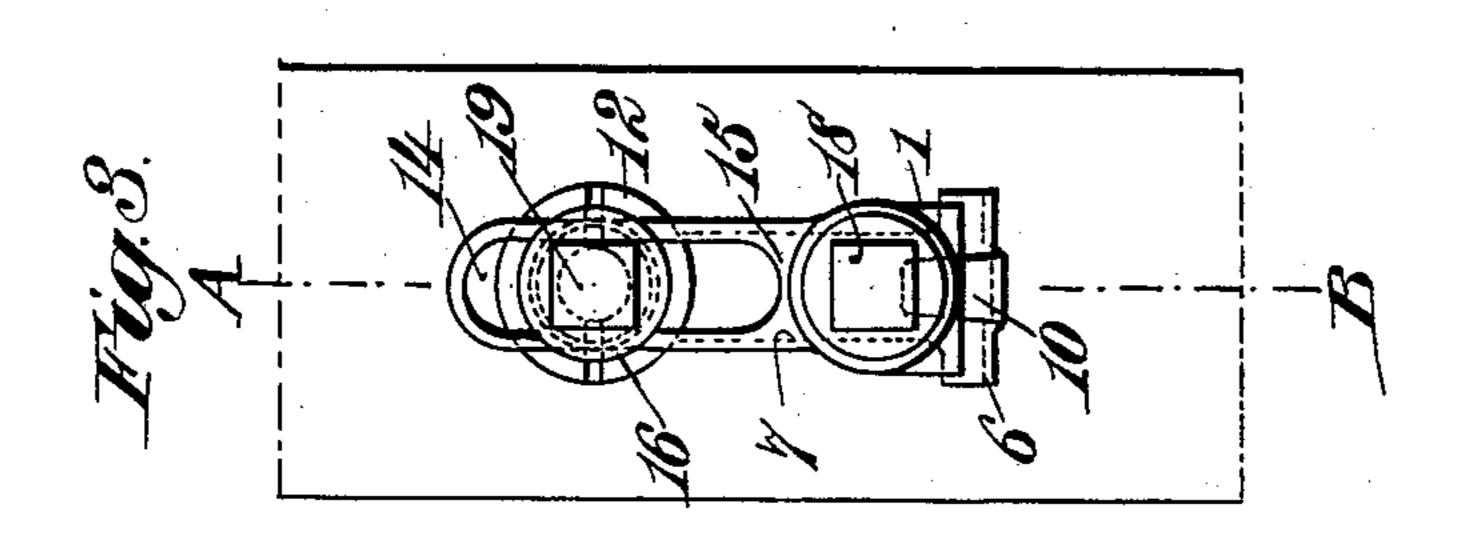
Patented Nov. 22, 1898.

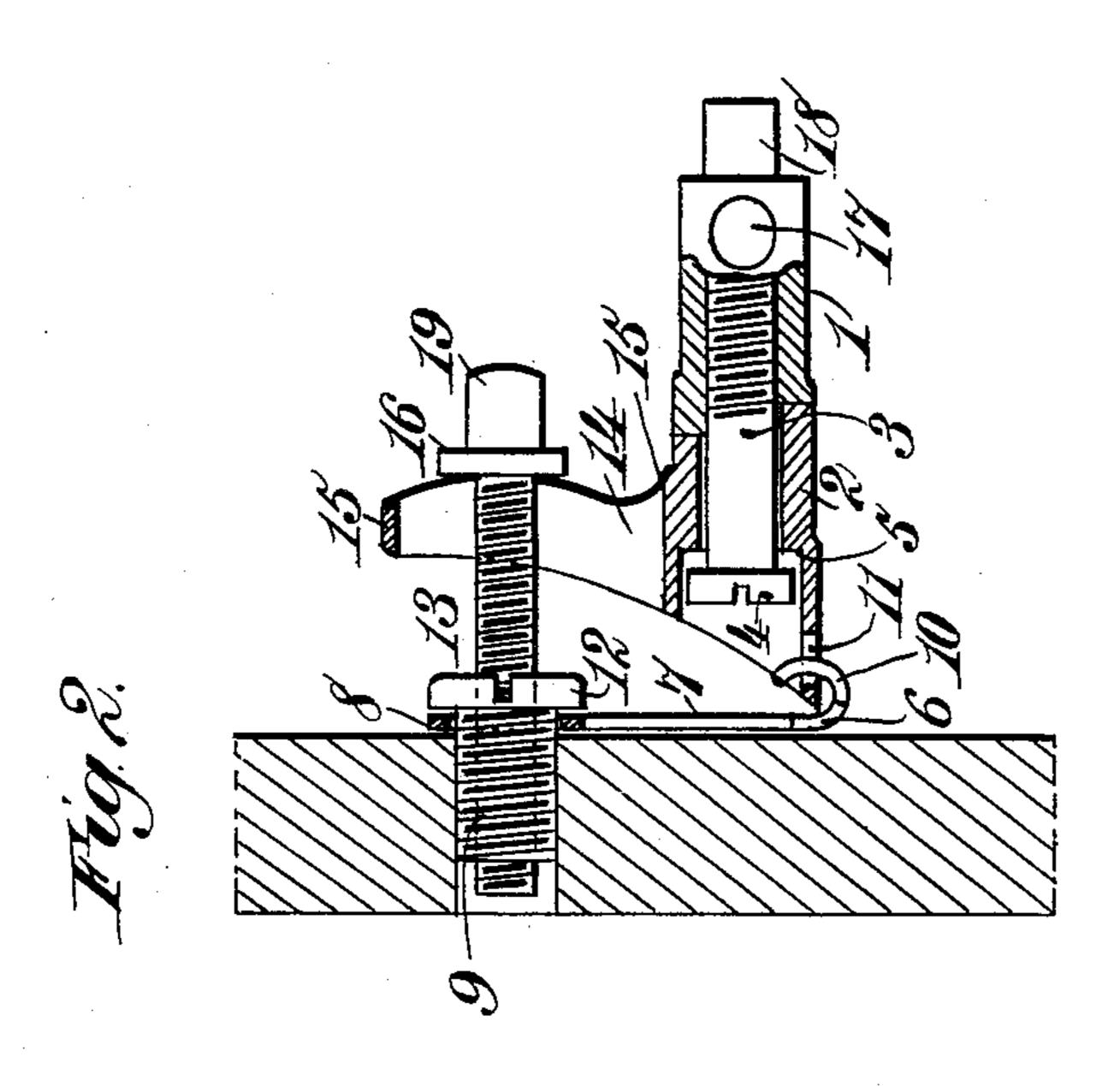
G. F. LYON.

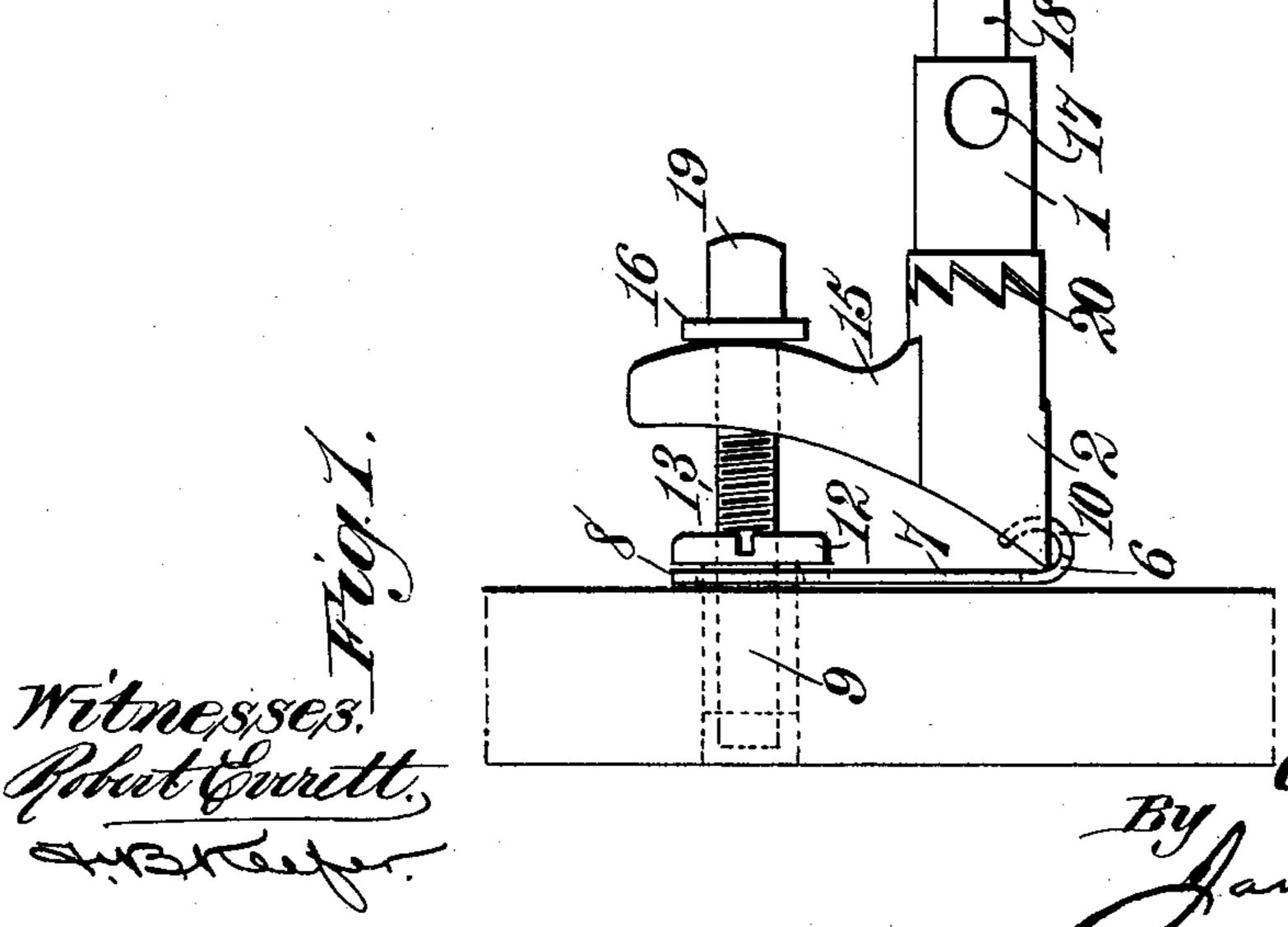
## ATTACHMENT PEG AND APPLIANCE FOR TUNING STRINGED INSTRUMENTS.

(Application filed Jan. 17, 1898.)

(No Model.)







Inventor, GustaveF. Lyon,

James L. Norris

## United States Patent Office.

GUSTAVE FRANTZ LYON, OF PARIS, FRANCE.

ATTACHMENT-PEG AND APPLIANCE FOR TUNING STRINGED INSTRUMENTS:

SPECIFICATION forming part of Letters Patent No. 614,735, dated November 22, 1898.

Application filed January 17, 1898. Serial No. 666,988. (No model.)

To all whom it may concern:

Be it known that I, GUSTAVE FRANTZ LYON, a citizen of France, residing at Paris, in the Department of the Seine, France, have invented certain new and useful Improvements in Connection with Attachment-Pegs and Appliances for Tuning Stringed Instruments, of which the following is a specification.

This invention relates to a tuning appliance for use with attachment-pegs in stringed instruments, such as harps, pianos, and the like, in which a screw arranged in the attachment-peg below the attachment-hole and ratchet mechanism permits of the tuning appliance being accurately moved and adjusted. This tensional tuning appliance has the further advantage that in using the same only one single hole need be made in the table or sounding-board for the purpose of fixing its different parts therein.

In order that my invention may be clearly understood, I will describe the same in detail with reference to the accompanying drawings, in which—

Figure 1 is a side elevation of the apparatus; Fig. 2, a section on line A B, Fig. 3. Fig. 3 is an end view of the apparatus.

The attachment-peg 1 2 is formed in two parts—an outer portion 1, with the attachment 30 hole 17 for the string, which terminates in a square end 18 for receiving the tuning-key of the operator, and a lower or inner part 2. These two parts are formed with ratchet-teeth 20 where they face each other, the movement of one from the other being regulated by a screw 3, which connects them together. The said screw, which may be solid or hollow, is fixed in the internally-screw-threaded part 1, but is loose in the part 2, its longitudinal movement being limited by the head 4, abutting against a seat or shoulder 5, provided in the part 2.

The part 2 terminates at its base in a bevel edge 6, which rests in a curved part 10, formed in a plate 7, made preferably of brass, which is made flat over its larger portion and is formed with a widened part 8 at its upper end, where it is pierced with a circular hole, by which it is suspended from a screw-threaded piece 9, hereinafter described. The lower

part of the piece 7 is bent to form a curved hook 10, which enters an opening 11, provided in the base 2 of the attachment-peg.

The screw-threaded piece 9, which is preferably of brass, is provided with a flattened 55 screw-head 12 and is fixed in the internal screw-threads of the table or sounding-board. Besides being screw-threaded externally the piece 9 is also provided with internal screw-threads for taking a peg 13. The peg 13 passes 60 through a hole or elongated slot 14, provided in a shoulder or attachment-piece 15 of the part 2 of the attachment-peg, and is furnished with a stop or shoulder 16, against which bear the side portions 15, forming the aforesaid 65 hole or elongated slot 14. The peg 13 terminates in a square end 19.

When in operation, the string or wire fixed to the lower attachment-peg 1 2 first has a preliminary tension imparted to it by winding 70 the string or wire over the part 1 of the said attachment-peg. Any recoil movement is prevented by the teeth 20 of the ratchet mechanism, and longitudinal displacement is adjusted by more or less tightening the screw 3, 75 as aforesaid. After this preliminary tension of the string the further gradual adjustment of the same required for tuning to a particular note is then obtained by acting upon the head 19 of the peg 13. The shoulder or at-80 tachment-piece 14 of the peg 12 is thus moved toward or moved away from the table or sounding-board, whereby the tension of the string is modified. During this movement the bell-crank lever formed by the attach- 85 ment-peg and its shoulder or attachment pivots on its bevel edge 6 against the inside of the hook 10 of the piece 7. Previous to any tension being applied to a string the hook 10 serves to hold the various parts of the ten- 90 sion tuning appliance and attachment-peg in position.

Having now particularly described and ascertained the nature of my said invention and the manner in which the same is to be per- 95 formed, I declare that what I claim is—

formed with a widened part 8 at its upper end, where it is pierced with a circular hole, by which it is suspended from a screw-threaded peg 13, of a bracket 15, having an opening through which said peg loosely passes, a hook 100 through which sai

substantially as described.

2. An attachment-peg and tuning appliance formed by the combination of the following parts: two parts 1, 2, forming together a ratchet mechanism 20, the receding movement of these two parts from one another

10 being limited by a seat or shoulder 5 carried by the piece 2 meeting the head 4 of a screw 3, fixed in the piece 1, the attachment-peg being movable or pivoting on its lower bevel edge 6 abutting against the interior of the

15 hook 10 of a plate 7, suspended from a screwthreaded piece 9, fixed in the single internallyscrew-threaded part of the table or soundingboard, through which screw-threaded part passes the peg 13, the shoulder 16 of which

20 acting upon the cheeks 15 of the attachment portion of the piece 2 regulates the tension of

the string, substantially as hereinbefore described.

3. In a stringing device for musical instruments, the combination with the peg 13, of 25 an internally and externally threaded sleeve 9 into which said peg is screwed, a bracket 15, having an opening through which the peg loosely passes, a hook 10, suspended from the peg and having engagement with an opening 30 11, in the bracket, a screw 3, loosely carried by the bracket and projecting outward therefrom, and a rotatable sleeve 1, secured to the said screw, and having an opening 17 therein, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing wit-

nesses.

614,735

GUSTAVE FRANTZ LYON.

Witnesses:

EDWARD P. MACLEAN, HIPPOLYTE JOSSE.