

F. H. ANDREWS.
 PHONOGRAPH STOP.
 APPLICATION FILED OCT. 1, 1908.

924,527.

Patented June 8, 1909.

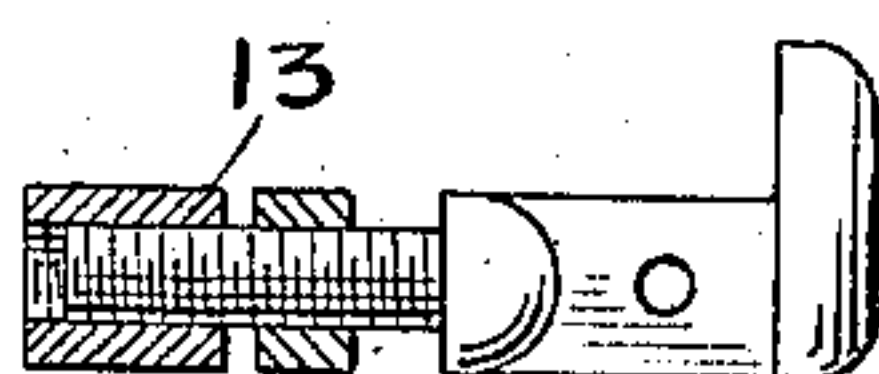
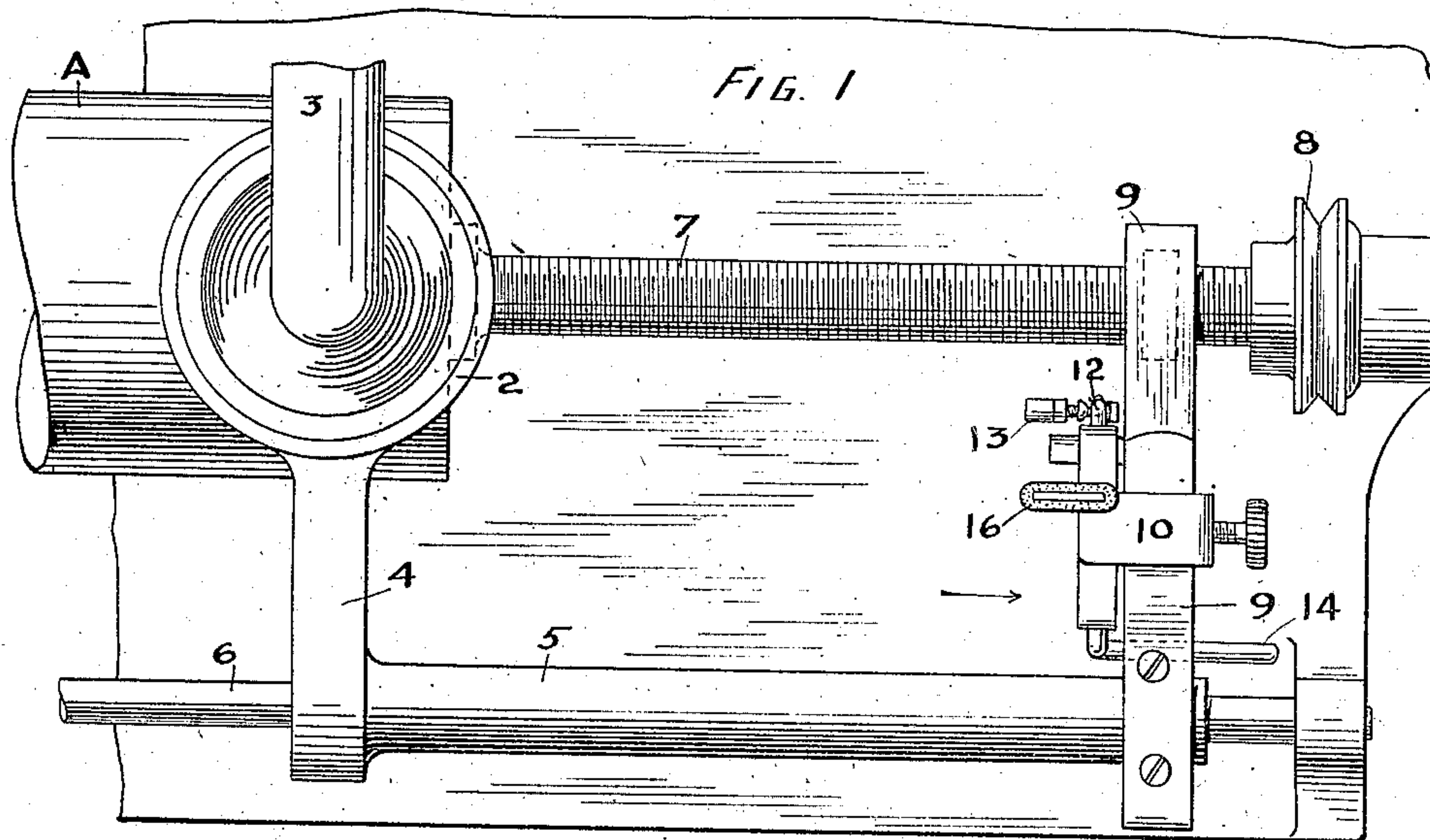


FIG. 2

FIG. 5

FIG. 4

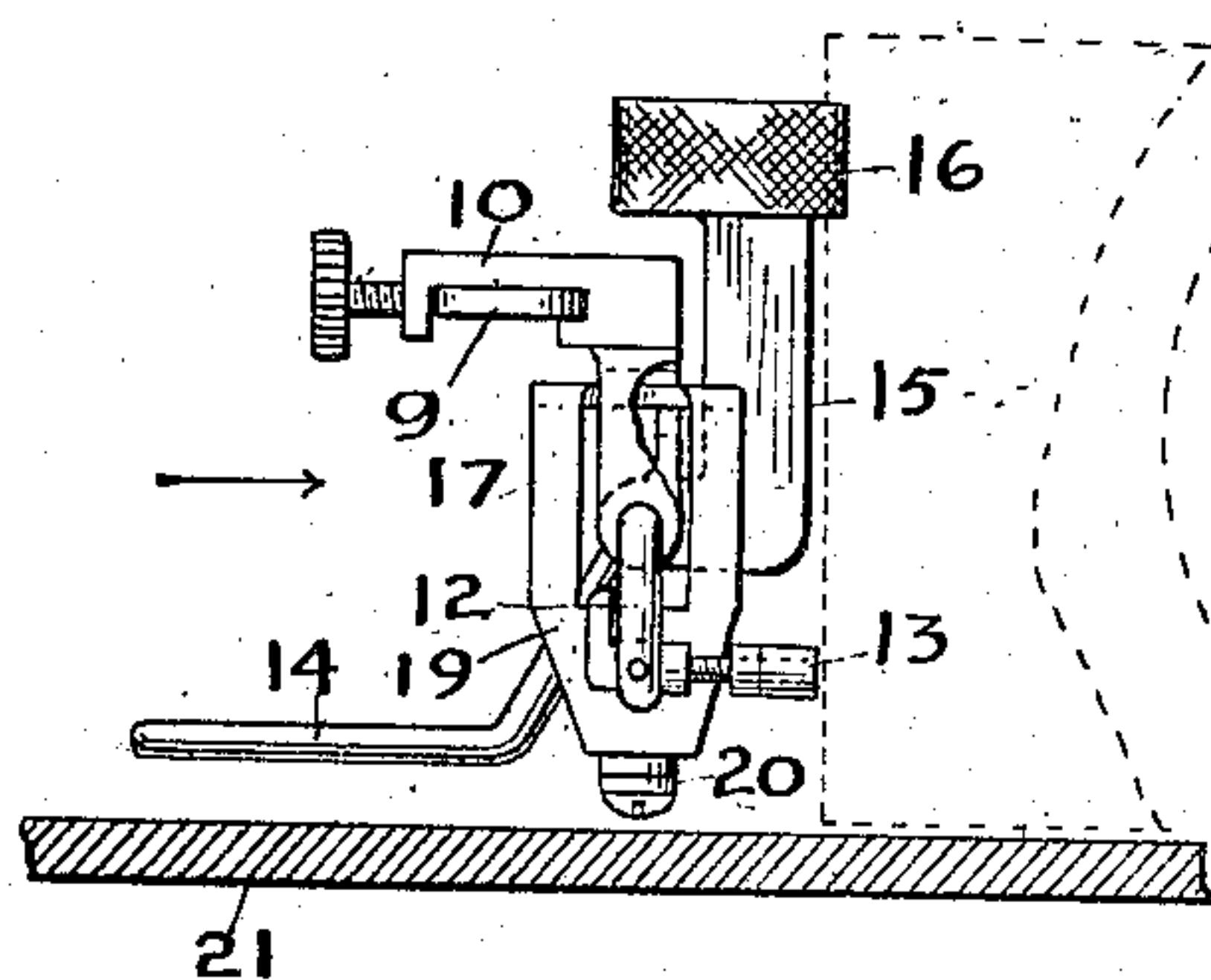
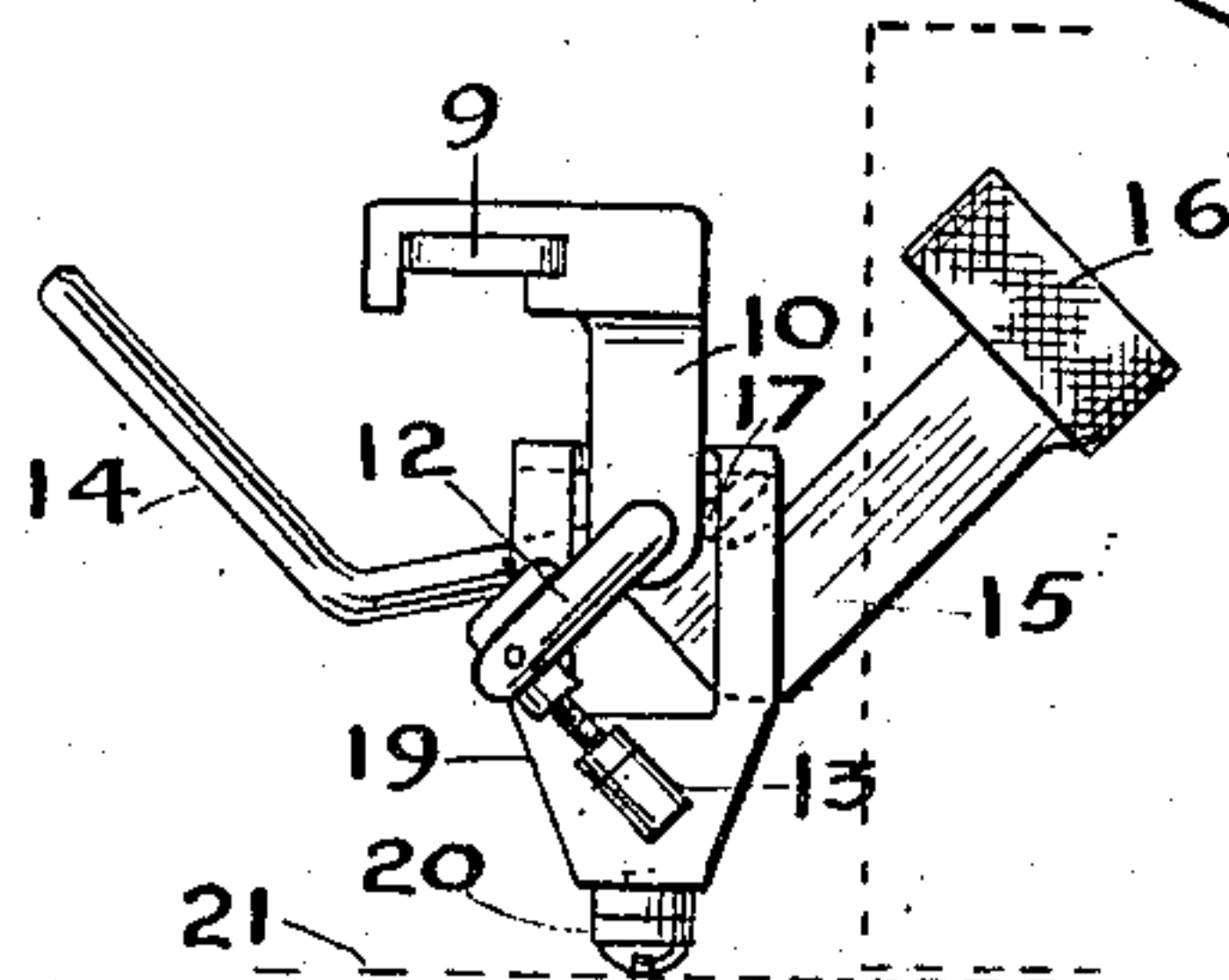
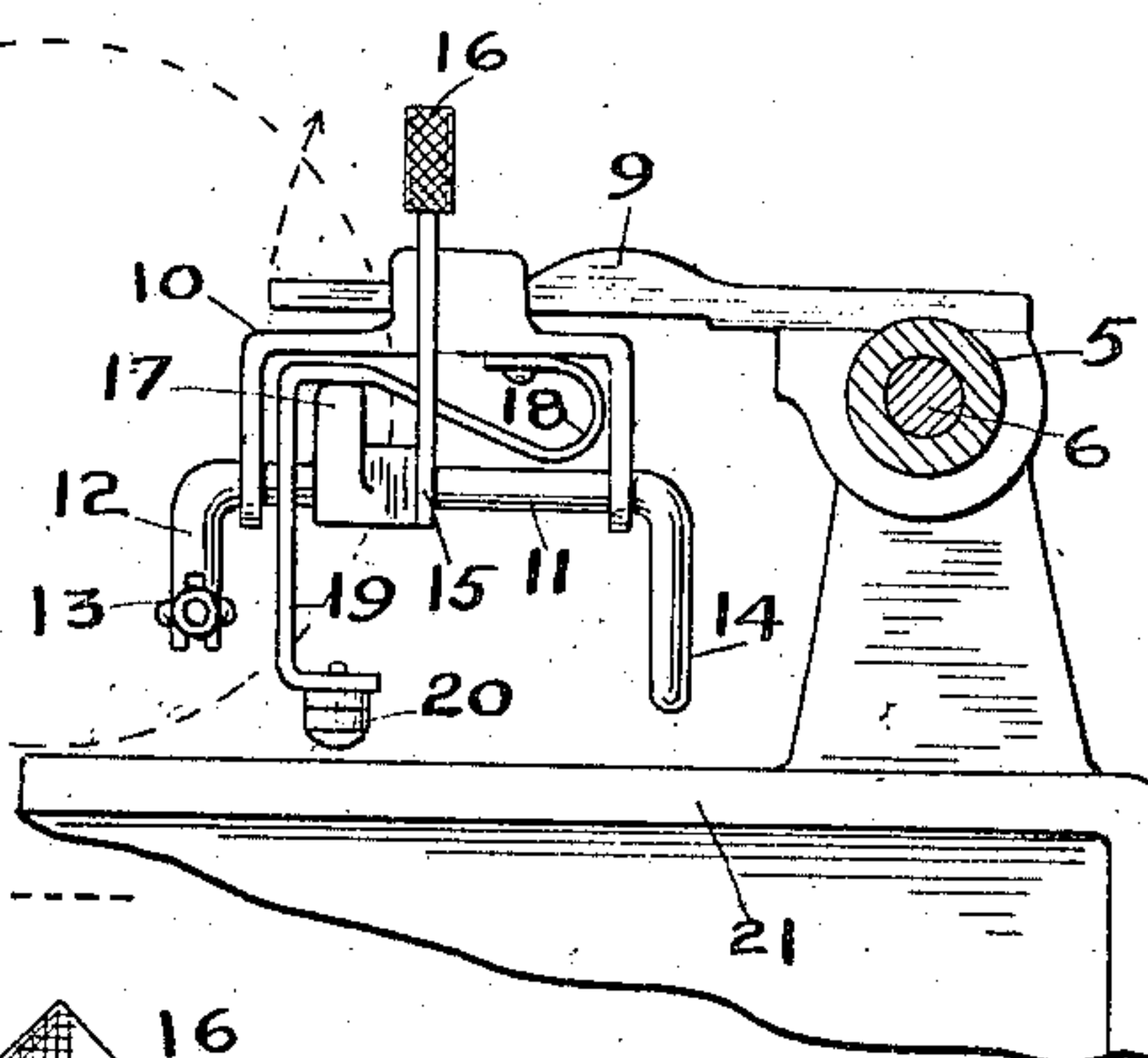


FIG. 3



WITNESSES

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PHONOGRAPH-STOP.

No. 924,527.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed October 1, 1908. Serial No. 455,749.

To all whom it may concern:

Be it known that I, FRANK H. ANDREWS, citizen of the United States, residing at Watsonville, in the county of Santa Cruz and State of California, have invented new and useful Improvements in Phonograph-Stops, of which the following is a specification.

My invention relates to a stop device for phonographs, gramophones and like instruments, in which a revoluble record is employed, in conjunction with a sound-box and conducting apparatus.

It consists of the parts and the constructions and combinations of parts hereinafter described and claimed.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a plan. Fig. 2 is an end view of the device, in operative position. Fig. 3 shows the device after the stop is operated. Fig. 4 is a side elevation.

As shown in the present drawing my device is especially applicable to that class of phonographs or instruments, in which a cylindrical record is revolved with relation to a sound-box; and a horn or means for increasing the tone produced by the revolution of the record, in contact with the needle of the sound-box.

The record cylinder A is mounted to be revoluble without advancing upon a shaft, and the sound-box 2, having the horn 3 connected with it, is carried by an arm 4 upon a sleeve 5, which is adapted to slide upon a fixed shaft 6.

7 is a finely threaded screw-shaft having fixed to it a driving pulley 8 through which power may be applied to rotate the screw-shaft.

9 is a bar or plate having one end fixed to the sleeve 5 and the other end projecting above the screw-shaft, carries a half nut, or equivalent engaging device which, resting upon the screw shaft 7, will be caused to advance by the revolution of said shaft, and as it advances, it will move the sleeve 5 and the sound-box 2, with its transmitting needle, so that the needle will follow the record to its end. At this point, it is desirable to stop further movement and arrest the parts.

This is effected as follows: A yoke or holder 10 is fixed to the end of the bar 9, and in the down-turned ends of the yoke is journaled a turnable shaft 11, one of the arms 12 of which carries a projecting stud 13. The other arm 14 projects outwardly and forms

a handle by which to set the device, and also a stop to limit its movement when the latter automatically takes place. The shaft 11 has fixed to it an arm 15, the end of which projects upwardly, and carries a shoe 16. Connected also with the turnable shaft 11 is an upwardly projecting spur 17 which, when the device is set, acts against a spring 18 to hold it in a compressed position. This spring connects with an arm 19 which carries a shoe or stop 20 at its lower end, and when the device is set, this shoe is raised above the surface of the table 21 of the apparatus, over which it moves without contact.

The operation of the device will then be as follows: The apparatus being set in motion by connection of the pulley 8 with any suitable motor, the record cylinder A will be revolved, and by means of the screw-shaft 7, and the engagement therewith of the nut upon the arm 9, the sound-box 2 will be advanced as previously described. The stud 13 projects in such a manner that when the record is finished, this stud will strike the end of the record-carrying cylinder, and will thus turn the shaft 11 sufficiently to cause the stud 17 to release the spring 18. The spring then acting upon the stud 17, which is in an angular position with relation thereto, will cause a rotation of the shaft 11, which throws the brake shoe 16 forward against the end of the record cylinder A, thus stopping further rotation. At the same time, the shoe 20 will be depressed and caused to rest upon the table 21, and will thus arrest any further forward advance of the moving parts.

The arm 14 serves to set the apparatus whenever desired, by pressing it down; and when thus set, the device is in readiness for operation.

The contact point 13 is made adjustable lengthwise so that the stop may be minutely adjusted with relation to the other parts. This adjustment may be made by making the end of the stop 13 in the form of a sleeve which is advanced upon a screw-threaded bearing pin, or by other equivalent device.

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

1. The combination in a phonograph, of a revoluble record, a sound-box, means for advancing the sound-box with relation to the record, a brake shoe movable in unison with the sound-box, and means by which said brake shoe is moved to arrest the forward

movement of the sound-box, said last-named means comprising a turnable shaft to which the brake shoe is fixed, and a member on said shaft adapted to be engaged by the record to
5 rock the shaft and thereby move the brake shoe into engagement with said record.

2. The combination in a phonograph and the like, of a revoluble record, a sound-box movable with relation to said record, a stop
10 movable in unison with the sound-box, means for moving said stop to arrest the movement of the sound-box when the record has been completed, said means comprising a rockable shaft to which the stop is fixed,
15 said shaft having an arm with a contact normally disposed longitudinally in line with the record adapted to engage said record to thereby rock the shaft and actuate the stop, and a brake shoe movable in unison with said
20 stop to arrest the revolution of the record.

3. In a phonograph and like apparatus, the combination of a revoluble record, a sound box, means whereby said box is advanced over the record, a spring pressed arm
25 having a stop member, a rockable shaft, a brake shoe carried by the shaft, said shaft having a part adapted to strike the record when it is advanced thereto whereby the shaft is rocked to move the brake shoe into
30 engagement with the record, a support for

the shaft movable in unison with the sound box, said shaft having, also, a member which contacts with said arm but which releases the arm when the shaft is rocked to thereby
allow the stop member to be applied. 35

4. In an apparatus of the character described, a brake and stop mechanism movable in unison with the movements of the sound box over the record, said stop mechanism including a support movable in unison
40 with the sound box, a bent rockable shaft mounted in said support having one portion in alinement with the record and having another portion provided with a brake shoe which is made to contact with the record
45 when the shaft is rocked, said shaft having a fixed stud, and said brake mechanism comprising a spring pressed arm having a stop member, said arm adapted to be engaged by said stud to release the stop member, and to
50 be released by the stud on the rotation of the shaft, to allow said stop member to be applied.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 55

FRANK H. ANDREWS.

Witnesses:

A. W. CUPID,

F. W. RUPPERT.