(No Model.)

J. DEWING & D. F. BENNETT.

TOOL FOR CUTTING SEATS FOR INSULATOR ATTACHMENTS FOR MUSICAL INSTRUMENTS.

No. 373,393. Patented Nov. 15, 1887.

FIG. 1.

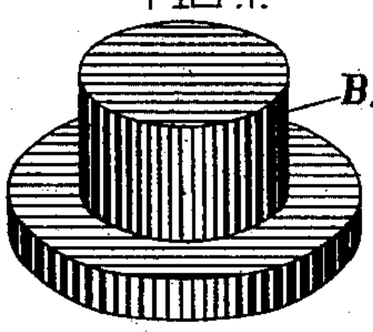


FIG. 2.

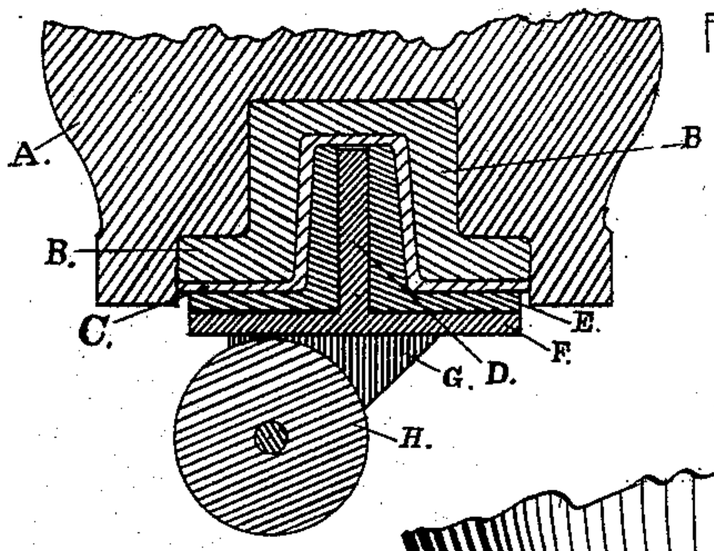


FIG 3

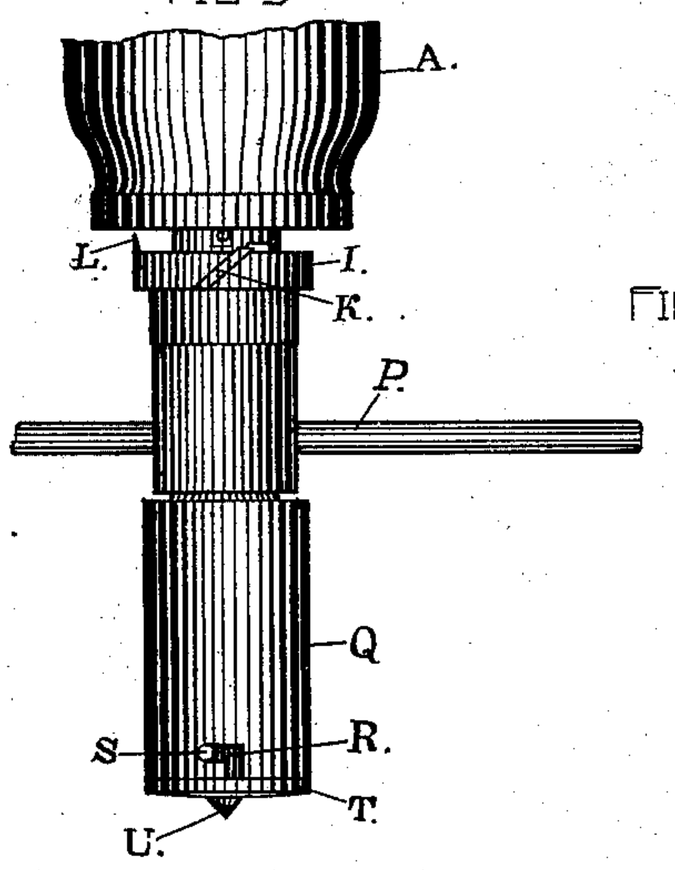


FIG 4

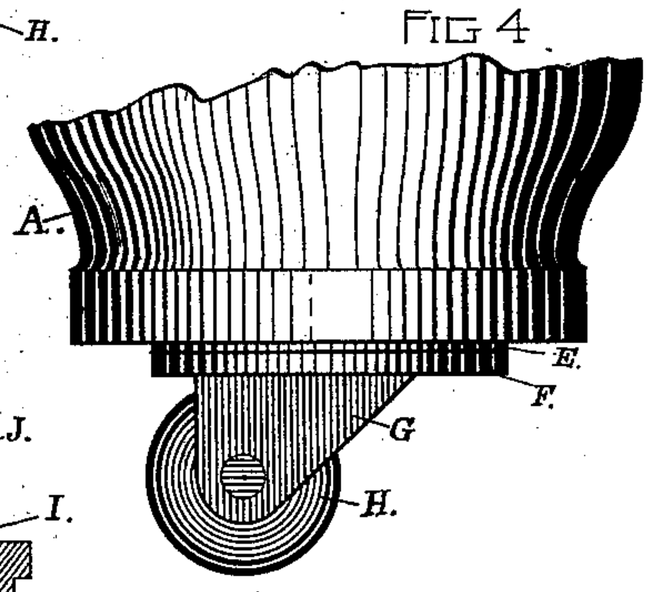


FIG 5

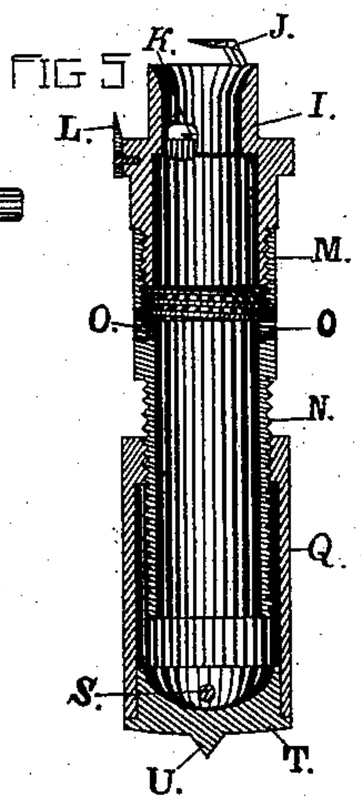


FIG 6

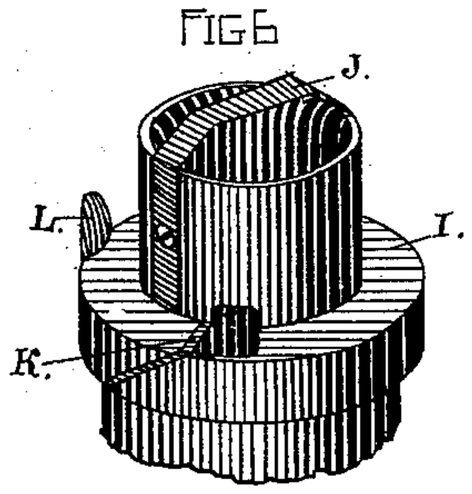
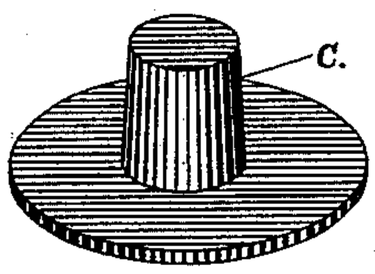


FIG 7



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UNITED STATES PATENT OFFICE.

JAMES DEWING AND DELBERT F. BENNETT, OF SAN FRANCISCO, CALIFORNIA.

TOOL FOR CUTTING SEATS FOR INSULATOR ATTACHMENTS FOR MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 373,393, dated November 15, 1887.

Application filed December 28, 1886. Serial No. 222,761. (No model.)

To all whom it may concern:

Be it known that we, JAMES DEWING and DELBERT F. BENNETT, both citizens of the United States, residing in the city and county of San Francisco and State of California, have invented a new and useful Improvement in Tools for Cutting Seats for Insulator Attachments for Musical Instruments, of which the following is a specificaion.

Our invention relates to improvements in devices for attaching insulators to pianos and other musical instruments, which will be readily understood by reference to the accompanying drawings, and the letters referring thereto.

Figure 1 is a perspective view of an insulating-glass. Fig. 2 is a section of a broken part of a leg with the insulator attached, cut vertically through the center. Fig. 3 is a perspective elevation showing a broken part of the leg with the cutting-instrument in the position of cutting the seat for the insulator. Fig. 4 is a perspective view showing the insulator complete in position in a broken part of a leg. Fig. 5 is a sectional view showing the cutting-instrument cut vertically through the center. Fig. 6 is a broken perspective view showing the top or cutting part of the instrument on an enlarged scale, and Fig. 7 is a perspective view of the rubber lining or washer.

A represents the leg of a piano or other instrument.

B represents the insulator-glass.

C represents the lining or washer.

D represents the spindle of the caster.

E represents the disk or plate which forms the upper horizontal bearing.

F represents the disk or plate forming the lower horizontal bearing.

G represents the hanger, and H the bearing-wheel of the caster.

I represents the cutter-head; J, the bit or cutter for cutting the central mortise to receive the insulator-glass; K, the bit or cutter to form the seat for the flange of the insulator-glass; L, the lip or cutter that marks the outside line of the seat of the flange of the insulator-glass.

M represents the upper thread by which the cutter-head is attached.

N represents the thread which forms the feed-screw.

O O represent the hole for receiving the lever P, by which the cutters are revolved for the purpose of cutting the insulator-seat.

P represents the lever for revolving the cutters for cutting the insulator-seat.

Q represents the lower sleeve forming the outside or female screw for the cutter-feed.

R represents the attaching or lock groove, by which the lower bearing-plate is attached.

S represents the attaching-pin.

T represents the lower bearing-plate.

U represents the pivot set-point of the lower bearing-plate, T.

The following is the operation of the same: We raise the piano and place the instrument, composed of the parts I, J, K, L, M, N, O, P, Q, R, S, T, and U, under the leg in a direct line with the axis of the leg, the lever P being in the position shown in Fig. 3. We then revolve the cutter-head I by means of the lever P. The screw N feeds about the proper amount for the cutters; but if the wood be hard and the feed be more than sufficient for the cutters, then the part Q is grasped by the hand of the operator and revolved forward upon the pivot-point U, so as not to feed upon the screw N until it has cleared the chips from the cutters, thus regulating the feed and adapting it to the kind of timber of which the leg is composed. The chips fall into the center of the tool, and as soon as the mortise or hole is of the required depth to receive the insulator-glass B the tool is taken away and the insulator, caster, &c., are inserted. The lower bearing-plate, T, is then taken off and the chips discharged, and the plate T again replaced and the tool placed in position to bore the next leg until all the legs are bored.

The object of placing these insulators described is to effect the tone of the piano or other musical instrument by increasing the same in volume.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is in setting the insulator described—

The combination, with the cutter-head I, having cutters J, K, and L, and the upper thread, M, of the cylinder having the feed-thread N and the lever-holes O O and the lever P, the lower feed-sleeve, Q, having the lock-groove R, the lower bearing-plate, T, having attaching-pin S, and the pivot set-point U, for the purpose of regulating the feed and cutting the insulator-seat, constructed and operated as and for the purpose set forth.

JAMES DEWING.
DELBERT F. BENNETT.

Witnesses:
PHILIP PRIOR,
JAMES MASON.