E. & J. ADELL.

MACHINE FOR TRUING THE BASES OF TENPINS.

APPLICATION FILED FEB. 16, 1909.

947,708. Patented Jan. 25, 1910.

Fig. 1.

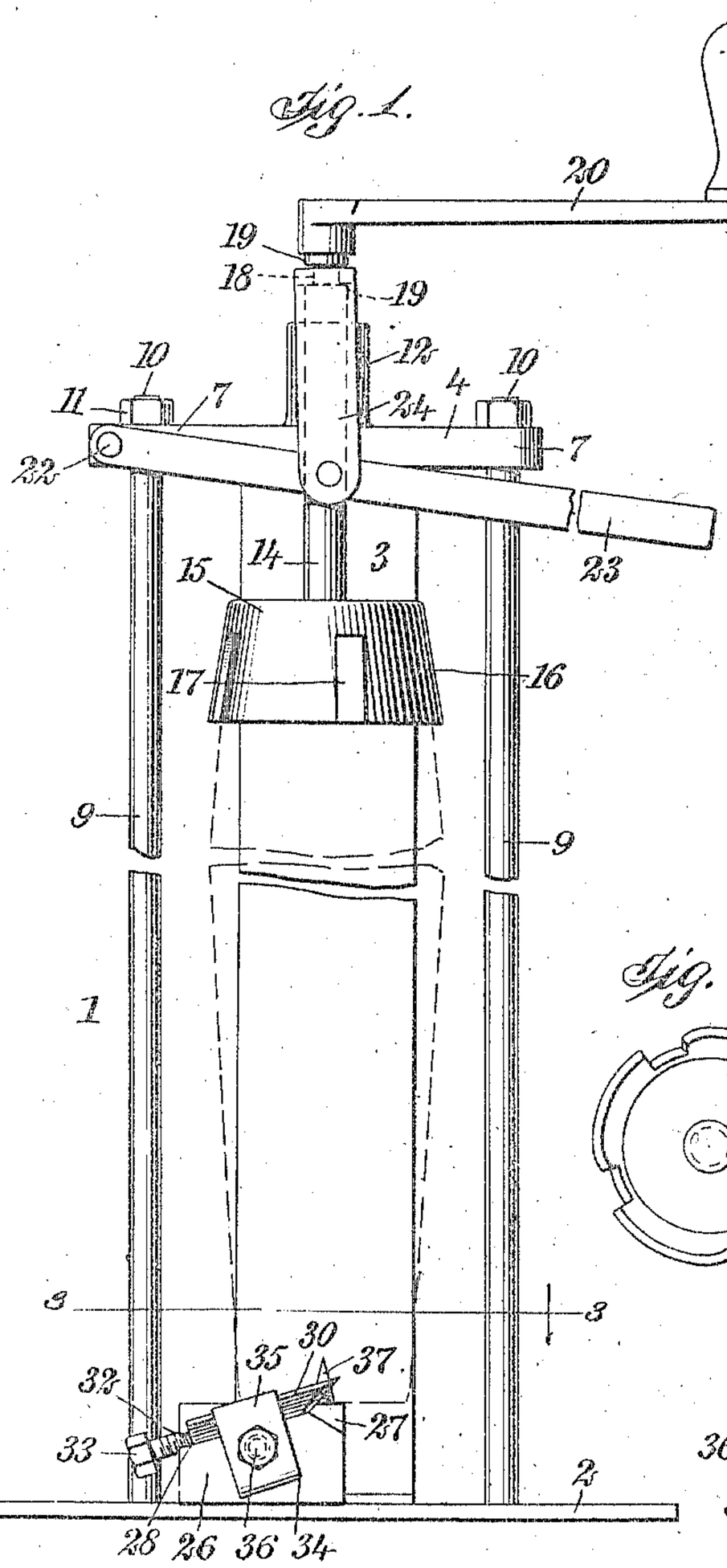


Fig. 2.

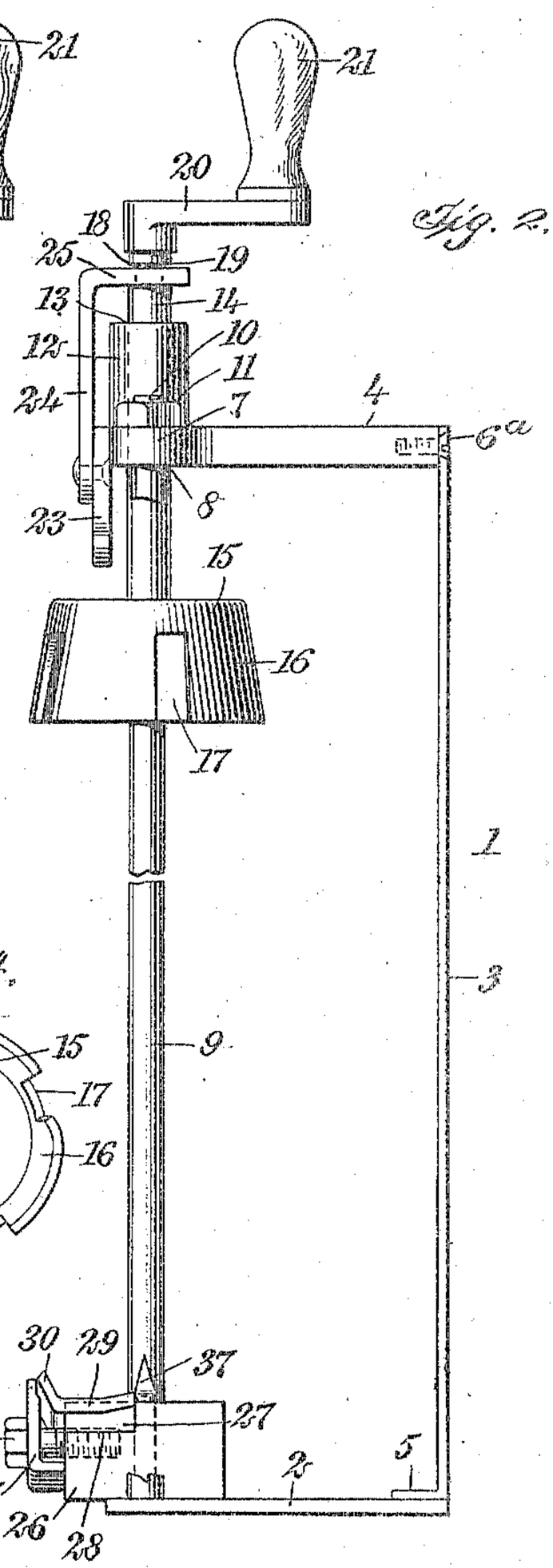


Fig. 4.

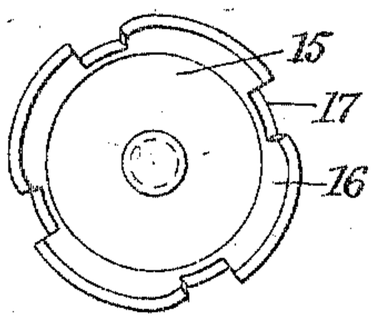
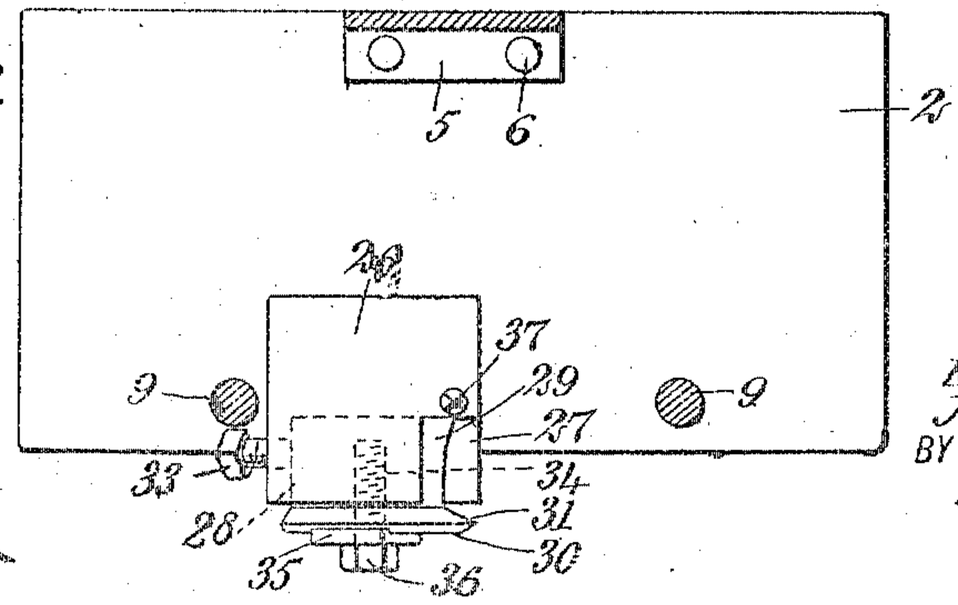


Fig. 3.



WITNESSES

INVENTORS
Edward Adell
John Adell
BY Munn & Co
ATTORNEYS

UNITED STATES PATENT OFFICE.

EDWARD ADELL AND JOHN ADELL, OF ORANGE, MASSACHUSETTS.

MACHINE FOR TRUING THE BASES OF TENPINS.

947,708. Specification of Letters Patent. Patented Jan. 25, 1910.

Application filed February 16, 1909. Serial No. 478,190.

To all whom it may concern:

Be it known that we, EDWARD ADELL and JOHN ADELL, citizens of the United States, and residents of Orange, in the county of Franklin and State of Massachusetts, have invented a new and Improved Machine for Truing the Bases of Tenpins, of which the following is a full, clear, and exact description.

This invention relates to a machine for truing the bases of tenpins, and more particularly such as includes a frame having a cutter arranged thereon, a chuck for holding the work, and means for rotating one of the parts whereby the cutter will operate to true the base of the work.

The object of the invention is to provide a device of the class described, simple and serviceable in construction and inexpensive to manufacture, which can be easily operated by hand, and which has a manually controllable lever for feeding the work to the cutter.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of an embodiment of our invention; Fig. 2 is a side elevation of the same, having one of the supporting uprights broken away; Fig. 3 is a cross section on the line 3—3 of Fig. 1; and Fig. 4 is an inverted plan view of the chuck.

Before proceeding to a more detailed description of our invention, it should be understood that we have provided a machine which, although it is especially adapted for truing the bases of tenpins, candle pins, duck pins or the like, may be employed for other purposes where a similar service is required of it.

After tenpins have been used for some time, they become battered and do not stand firmly on their bases. To remedy this difficulty, we have provided a machine which is simple in construction, and which, when the pin has been operatively positioned, will true the base of the latter, thus obviating the necessity of using a lathe.

In the specific form shown in the drawings, we provide a frame 1 of any suitable metal, such as iron or the like, and including a base 2, a back 3 and a top 4. The lower end 5 of the back 3 is laterally disposed and is secured to the base by means of rivets 6 or the like. The upper end of the back is secured to the top by means of screws 6ª. The top of the frame is substantially T-shaped and has its extremities 7 provided with openings 8. Rigid with the base 2 are supporting uprights 9 having their upper ends 10 constricted and threaded, the latter being adapted to be passed through the openings 8 in the top and to be secured in place by means of nuts 11.

Located on the top is a sleeve 12 having an opening 13 extending therethrough and through the top. The sleeve acts as a bearing for a spindle 14 which extends therethrough and which, at its lower end, carries a chuck 15. The latter is provided with an outwardly disposed flange 16 which has a plurality of recesses 17 cut therein. Near its upper end the spindle 14 has a constricted portion 18 which forms a shoulder 19. Arranged on the upper end of the spindle is an operating handle 20 having a grip 21 whereby the spindle and the chuck can be rotated.

Secured to one of the ends 7 of the top by means of a pivot pin 22 is a feed lever 23. Pivotally arranged on the lever is a link 24 having its upper end 25 laterally disposed and provided with a gap adapted to engage the spindle at the constricted portion 18, so that when the feed lever is either raised or lowered, the portion 25 of the link will engage the shoulder 19 to raise or lower the spindle and the chuck to control the work.

Rigid with the base 2 of the frame is a block 26 having a cut-away portion 27. The block is provided with an inclined groove or slot 28 which serves to receive a cutter 29. The latter is provided with an outwardly disposed extension 30 and has its edge 31 beveled. Located in a threaded opening 32 in the block which connects with the groove 28 is an adjusting screw 33 which abuts against the rear of the cutter and serves for the adjusting of the same. Mounted in an opening 34 on the front of the block is a keeper 35 which engages the extension 30 of the cutter to hold the latter against lateral displacement. A screw 36 serves to retain the keeper in place.

Adjacent to the cut-away portion 27 of the block and rigid with the latter is a stud 37 which serves to center the work while it is being rotated.

In the operation of the device, when it is desired to true the base of the tenpin, the

spindle and the chuck are raised by means of the lever 23 so that the base of the tenpin may be arranged on the block 26, the stud 37 being inserted at the center of the base. The spindle is then lowered by means of the lever until the chuck is in engagement with the top of the pin. At this point, the handle 20 is operated and the tenpin rotated. As a constant pressure is applied to the lever, the base of the tenpin is forced into engagement with the cutter, and the latter serves to plane the base until it is again true. The edges of the recesses of the chuck serve to grip the head of the pin, the chuck being outwardly tapered to facilitate the engagement thereof with the work.

The cutter edge 31 is inclined with respect to the length of the cutter, whereby it penetrates more deeply into the work nearer the center than the edge thereof. Thus the base of the pin trued is recessed to permit it to stand firmly upon the edge portion of the base.

Having thus described our invention, we claim as new and desire to secure by Letters Patent:

1. In a machine of the class described, a frame having a rotatable chuck arranged thereon, a block rigid with the base of said frame, said block having a slot, a cutter adjustably arranged in said slot, a keeper adapted to engage said cutter, and a stud mounted on said block and adapted to be inserted into the base of the work at the center thereof.

2. In a machine of the class described, a frame consisting of a top, a back and a base, supporting uprights connecting said top and said base, said top having an opening extending therethrough, a spindle arranged within said opening and having a chuck at one end thereof, a handle rigid with the other end of said spindle, said spindle having a constricted portion, a lever pivotally secured to said top, a link arranged on said lever and having its upper end laterally disposed and provided with a gap, said gap receiving the constricted portion of said spindle, whereby said lever can be employed to raise or lower said chuck, a block rigid with the base of said frame and provided with a slot, a cutter adjustably located in said slot, a keeper arranged on the outside of said block and adapted to engage said cutter, and a stud rigid with said block and adapted to be inserted in the base of the work to prevent the lateral displacement of the latter.

3. In a machine of the class described, a block provided with a slot, a cutter adjustable in the slot, a keeper on the block for engaging the cutter, and a stud secured to the block for the purpose set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

EDWARD ADELL.
JOHN ADELL.

Witnesses:
ABRAHAM L. TOLMAN,
WILLIAM A. CLARK, Jr.