

(No Model.)

E. F. KUECHLER & H. STARCK.
MACHINE FOR POLISHING TABLE KNIVES, &c.

No. 518,148.

Patented Apr. 10, 1894.

Fig. 1.

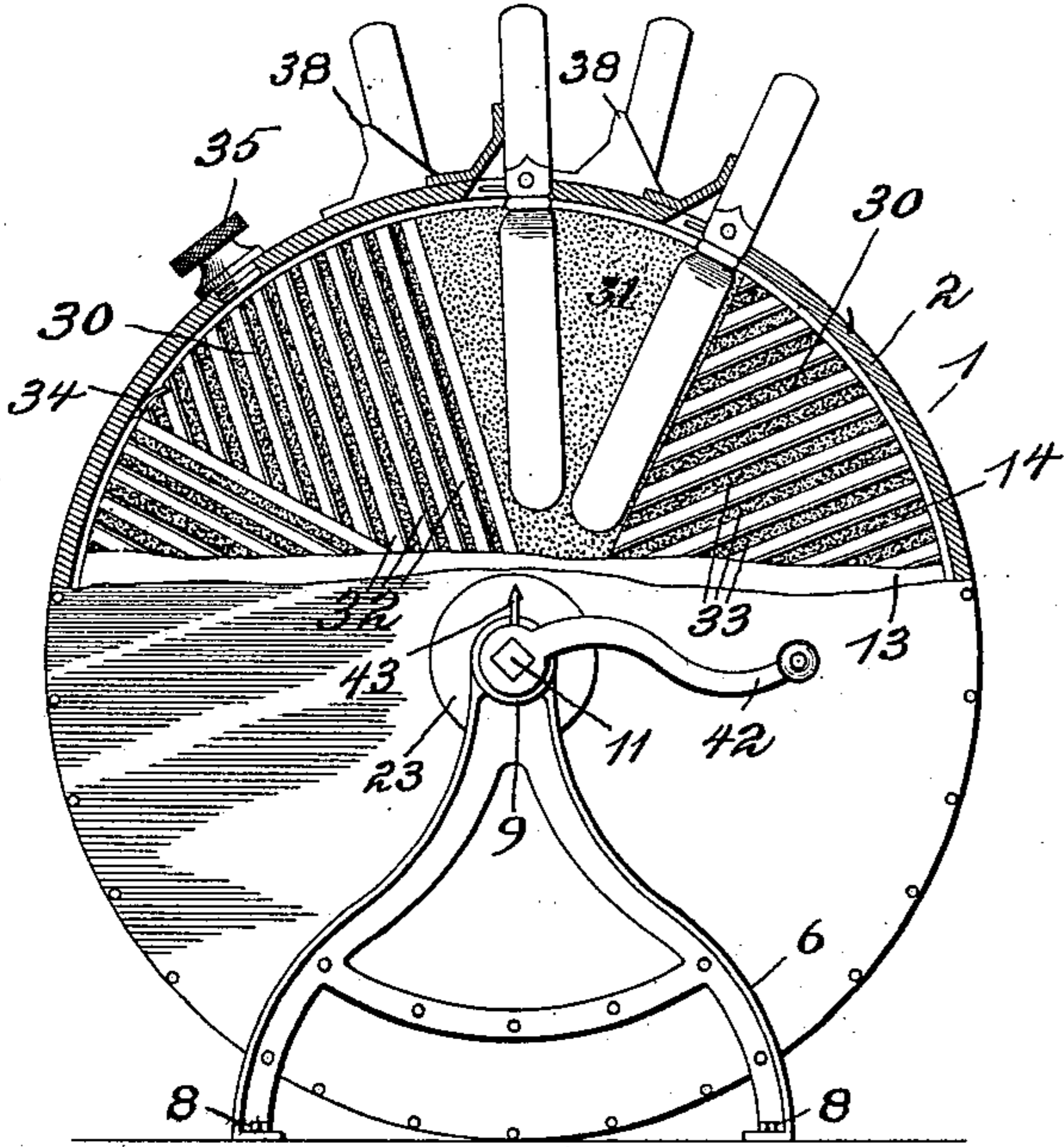


Fig. 2.

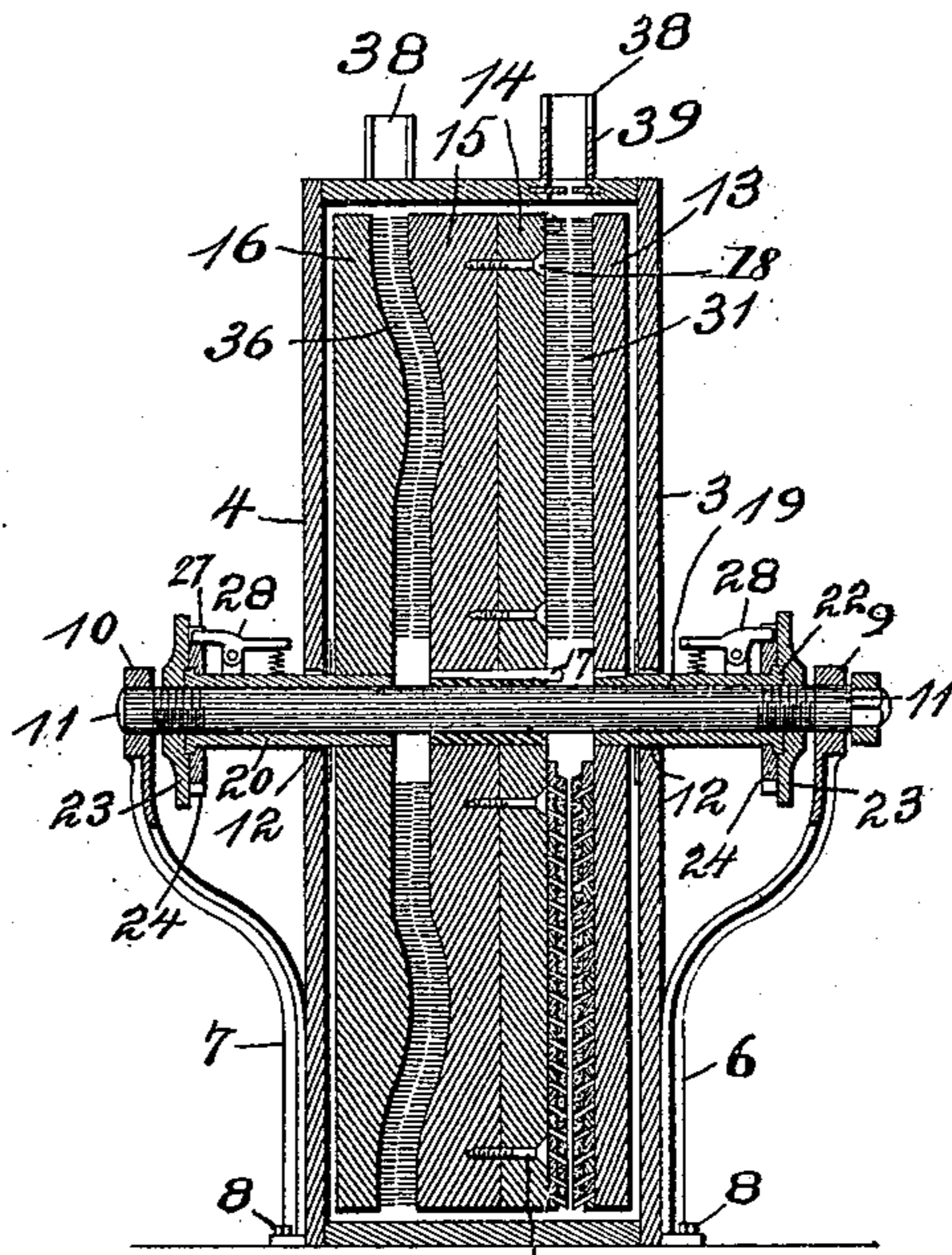


Fig. 4.

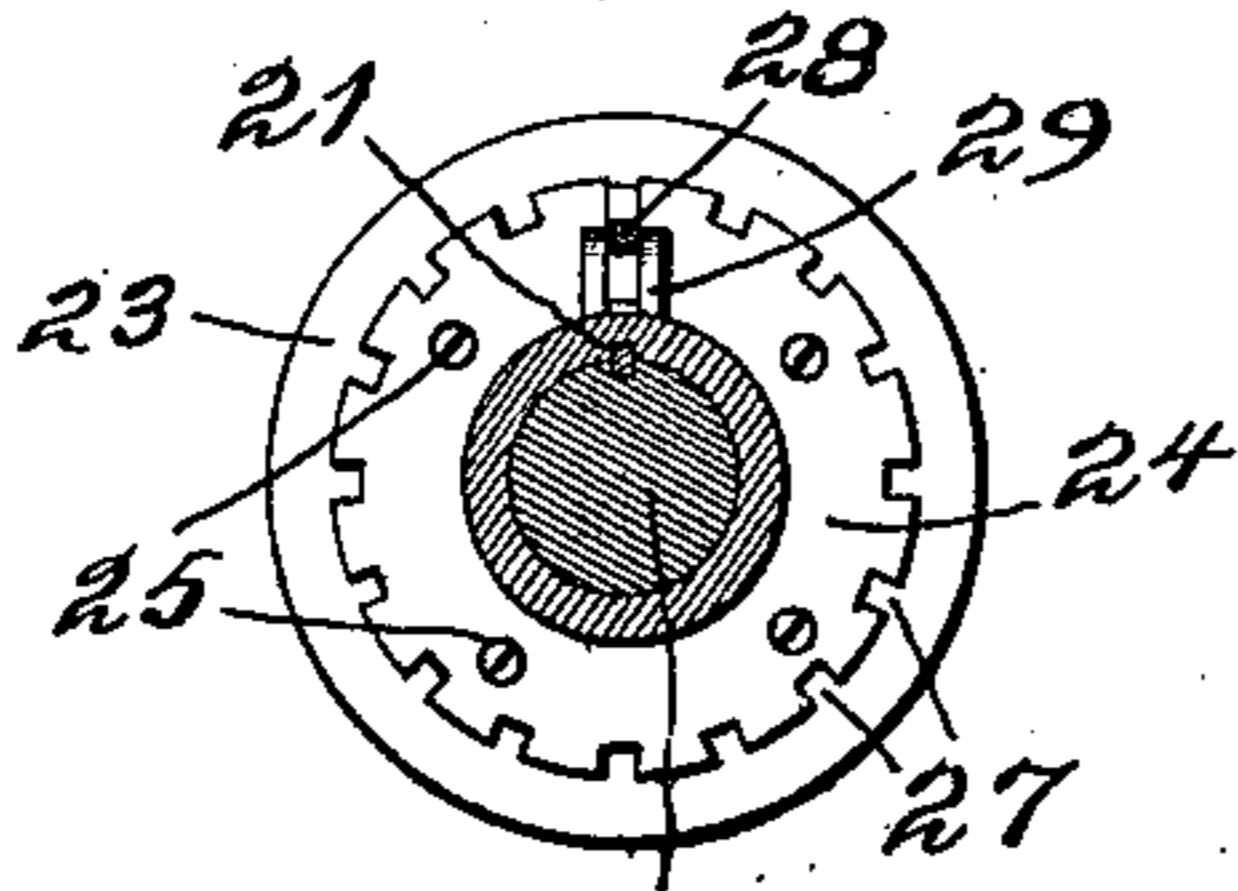


Fig. 5.

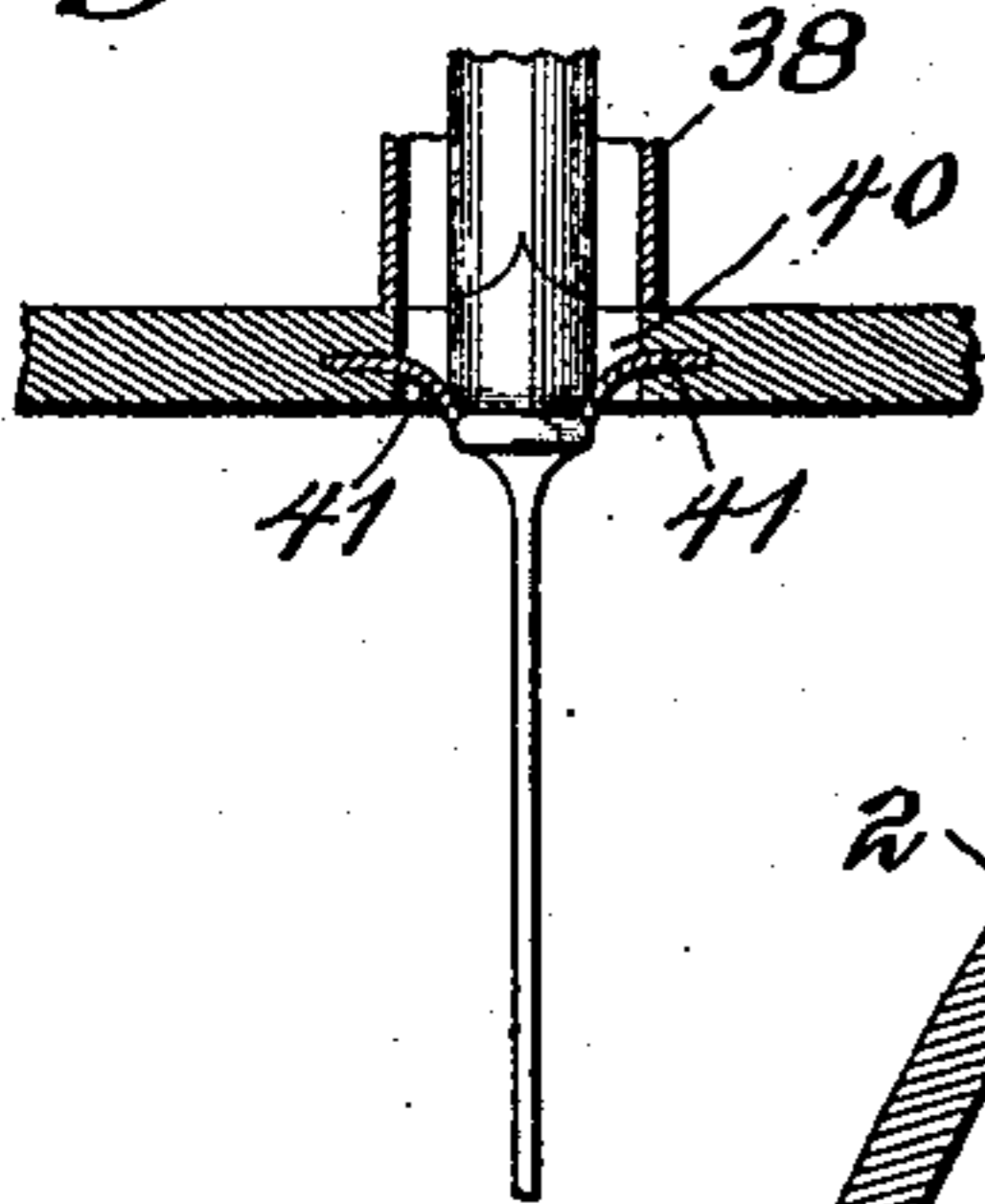


Fig. 6.

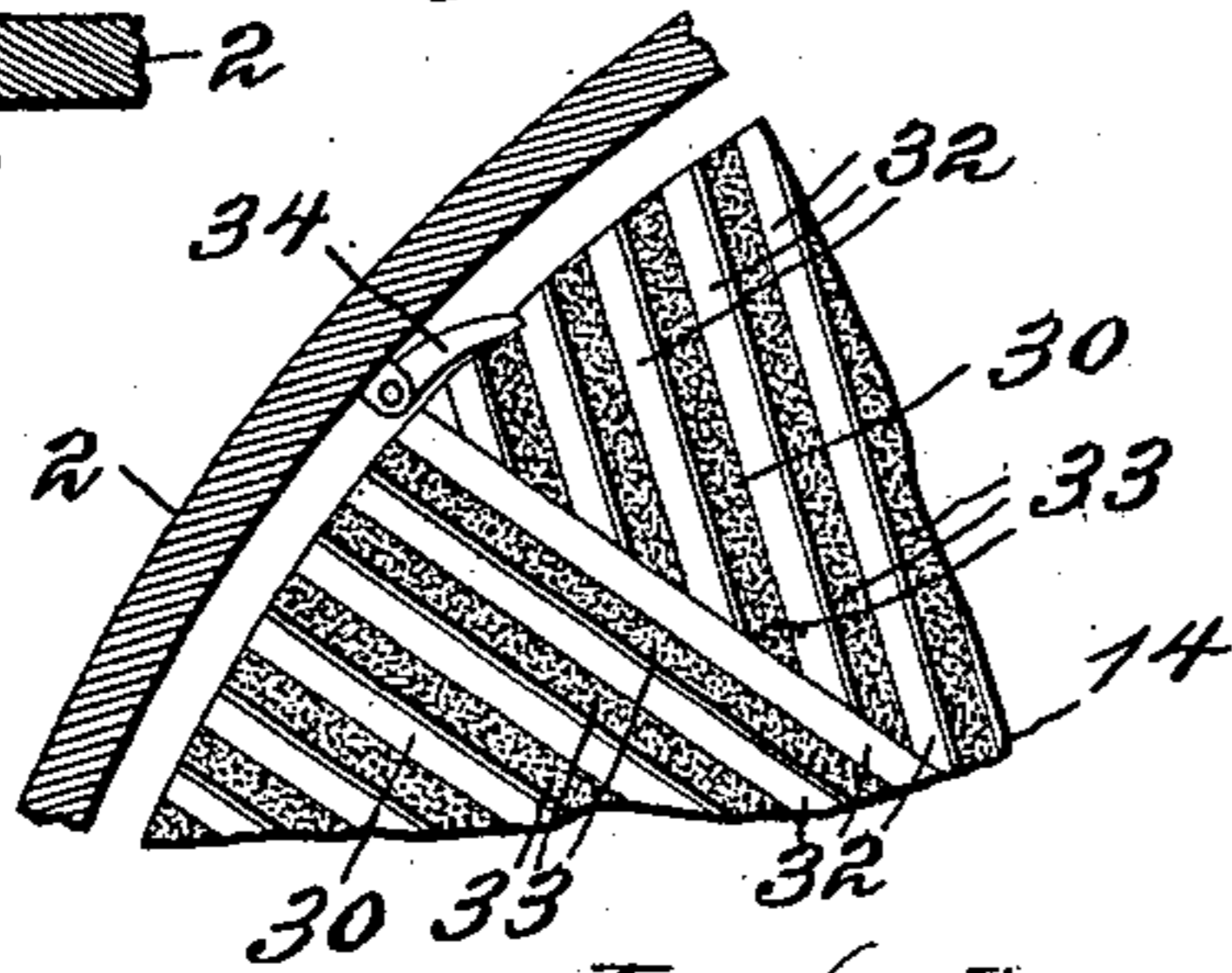
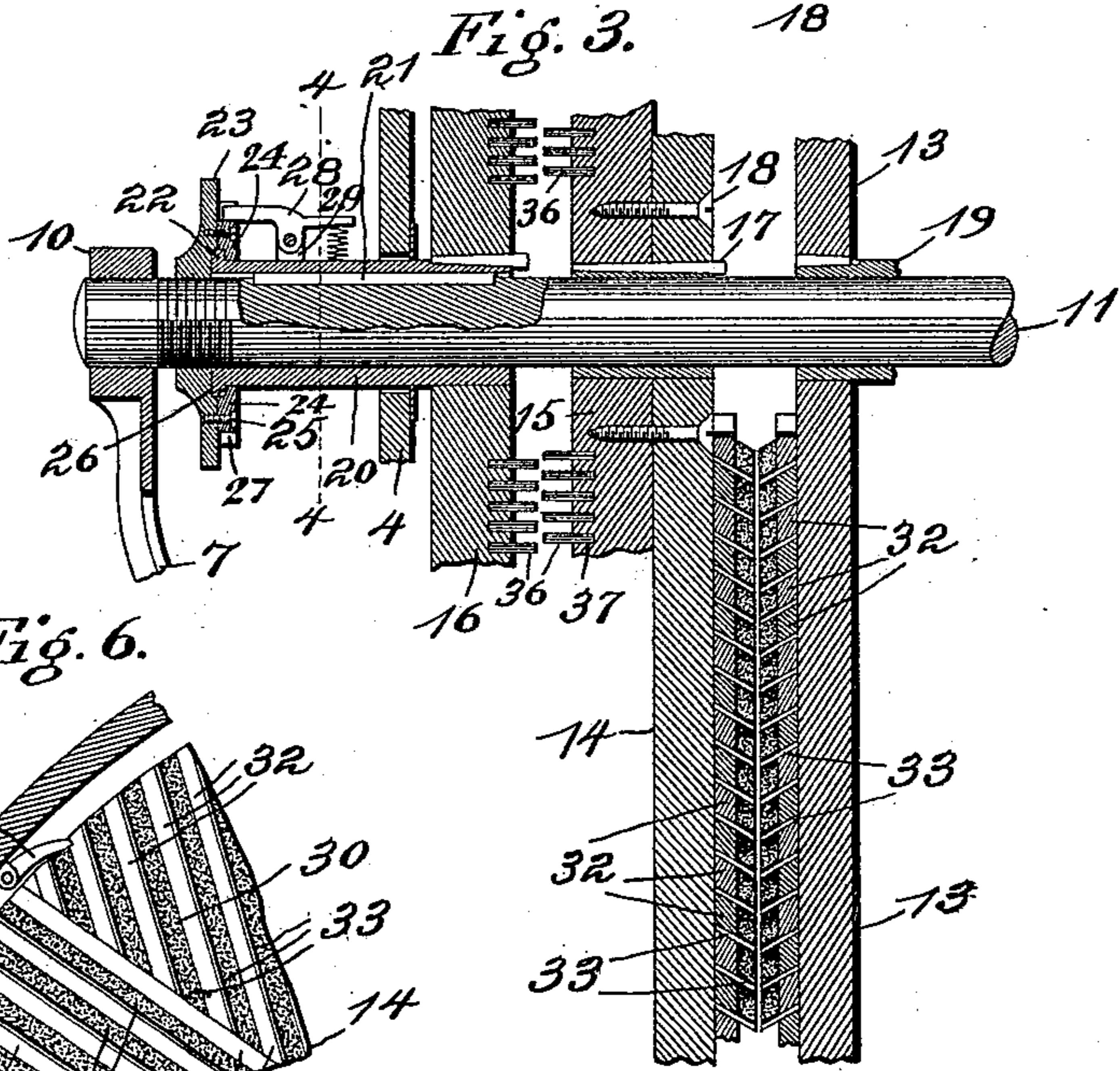


Fig. 3.



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UNITED STATES PATENT OFFICE.

EMIL F. KUECHLER AND HERMAN STARCK, OF ST. LOUIS, MISSOURI.

MACHINE FOR POLISHING TABLE-KNIVES, &c.

SPECIFICATION forming part of Letters Patent No. 518,148, dated April 10, 1894.

Application filed September 19, 1893. Serial No. 485,749. (No model.)

To all whom it may concern:

Be it known that we, EMIL F. KUECHLER and HERMAN STARCK, of St. Louis, Missouri, have invented certain new and useful Improvements in Machines for Polishing Table Knives and Forks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

The object of our invention is to construct a machine for polishing table knives and forks, and consists in the novel arrangement, combination and construction of parts as will be more fully hereinafter described and designated in the claim.

In the drawings: Figure 1 is a side elevation of our improved machine, portions being broken away and removed to more clearly show the same. Fig. 2 is a vertical longitudinal central section of Fig. 1. Fig. 3 is an enlarged detail section more clearly showing the adjusting mechanism which we use in carrying out our invention, portions being broken away. Fig. 4 is a sectional view more clearly showing a notched disk which we use in carrying out our invention, sections being taken on the line 4—4 of Fig. 3. Fig. 5 is an enlarged detail view showing how the knife or fork is held in position while being polished. Fig. 6 is an enlarged detail sectional view of a portion of the casing showing a pawl in engagement with one of the cleaner disks, a portion of said disks being broken away.

Referring to the drawings: 1 indicates a casing which is constructed of an annular rim 2 and sides 3 and 4. The rim is of suitable width so that when the sides are connected to its edges it will form a chamber within said casing. The sides 3 and 4 are connected to the annular rim by screws or pins 5 which pass through the peripheral edge of said sides and into the rim, thus holding them together.

6 and 7 indicate supporting legs which are connected to the outer sides of the sides 3 and 4, the lower ends of which are bent or formed so that they can be connected to a table or supports by screws or bolts 8. The upper ends of the supporting frames 6 and 7 are bent outward from the sides 3 and 4 and their upper ends are provided with bearings 9 and 10, these bearings being in alignment with the center of said sides so that when the hori-

zontal shaft 11 is mounted in the bearings 9 and 10 and passed through the casing 1 it will be directly in the center of said casing, there being apertures 12 of suitable size formed in the sides 3 and 4 to allow said shaft to pass through.

Located in the casing 1 are four disks 13, 14, 15 and 16. The disks 14 and 15 are connected to a collar by a key 17, said collar being integral with the shaft, and these disks are connected together by a suitable number of screws 18. The disk 13 is connected to the inner projecting end of a sleeve 19. This sleeve extends through the adjacent side of the casing to allow this operation and the disk 16 is connected to the inner projecting end of the sleeve 20, which projects through the adjacent side a suitable distance to allow said disk to be connected thereto.

The mechanism used for adjusting the sleeves 19 and 20 which carry the disks 15 and 16 being exactly the same in construction and operation, we will limit our description to but one. The sleeve 20 is feathered on the shaft 11 by a feather 21. The outer end of the sleeve 20 is provided with a right angle annular projection 22 which is engaged by two disks 23 and 24. The disks 23 and 24 are connected together by screws 25 and the disk 23 is provided with a threaded aperture of suitable size that it will fit on the threaded portion of the shaft 11 and the disk 24 is constructed with an aperture of suitable size that it will fit on the sleeve 20 and an annular groove 26 is formed in the adjacent sides of said disk for the projection 22 to engage. The outer periphery of the disk 24 is provided with a suitable number of notches 27, so that said disk can be engaged by a spring actuated pawl 28 and held in the required position. This pawl 28 is pivotally engaged by lugs 29 which are located in a suitable position on the sleeve 20. (See Figs. 2 and 3 for illustration.) The adjacent disks 13 and 14 are divided into sections 30; one of these sections on each disk is covered with bristles 31 which extend outward a suitable distance for the purpose hereinafter mentioned. (See Fig. 2 for illustration.) The sections 30 are constructed with a series of parallel strips 32 between which is located and held in position a strip of felt 33 or like flexible material.

The free edge of the strips of felt 33 project outward through the disk the same distance as the bristles 31. The purpose of this felt will be hereinafter mentioned.

5 34 indicates a pawl which is pivoted on the inner side of the rim 2 and so located that it will engage notches formed in the outer periphery of the disk 14. By the construction of this pawl it prevents the disk 14 from being moved backward.

10 35 indicates a cap which is threaded into an aperture formed in the rim 2 of the casing. This cap is to close said aperture when not in use, and when it is desired to insert powdered emery into said casing the cap is removed and then replaced, thus tightly closing said casing at this point.

20 The adjacent sides of the disks 15 and 16 are covered with bristles 36 of the desired length, they being connected to said disk by being inserted into openings 37 formed in the adjacent sides of said disks. (See Fig. 5 for illustration.) The adjacent sides of the disks 15 and 16 are formed so as to conform with a table fork. (See Fig. 2 for illustration.)

25 Located on the casing 2 are a suitable number of brackets 38 which are constructed with sides 39 which forms an opening therein which corresponds with an opening 40 formed in the casing. The opening 40 is partially closed by strips of rubber 41 or like flexible material. The purpose of these brackets are to retain the knives and forks in position, and also the disks while being rotated, and 35 the pieces of rubber or like material are to prevent the knives from slipping too far through the rim 2 and so the handle will not come in contact with said disks. One end of the shaft 11 is provided with a hand-crank 42 for the purpose of rotating said disks. This crank is provided with an indicating hand 43 located thereon adjacent the shaft. When this indicating hand is in a vertical position as shown in Fig. 1, the bristled section of the disks 13 and 14 are in the position shown in Fig. 1. This section is made of bristles so that the knives can be readily inserted between said disks and the knives will not come in contact with the felt. The 45 felt being located at an angle relative the adjacent sides of the disks, when the disks are rotated they will come in contact with the blades of the knives and polish and clean

them off, and they being located in sections they will strike said blades at an angle which 55 will cause them to more fully facilitate the cleaning thereof.

When it is desired to polish knives and forks the powdered emery can be inserted into the casing by the means hereinbefore 60 stated, and it will adhere to the felt and bristles, which will more fully facilitate the polishing of the knives and forks.

When it is desired to adjust the disk 16 the operator disengages the spring actuated 65 pawl 28 from the notches 27 in the disk 24 and screws the disk 26 which carries the disk 24 in the required direction, and by this operation it will laterally adjust the disk 16 in the required direction, it being connected to 70 the sleeve 20 as hereinbefore stated. When it has been adjusted the required amount, the operator releases the spring actuated pawl 28 and it will engage one of the notches in the disk 24, thus holding the disks 23 and 24 75 rigid with the sleeve 20. The disk 13 is adjusted in the same manner. The adjustments of these disks are essential for many reasons: When the bristles and felt begin to wear they can be adjusted so that they will 80 come in contact with the knives and forks or in case the knives and forks are of different sizes they can be adjusted to conform therewith.

What we claim is— 85

In a machine for polishing knives and forks, a casing supported by a frame, a horizontal shaft mounted in said frame and opening through the casing, disks 14 and 15 connected to said shaft and located in said casing, a disk 13 located within said casing, a sleeve feathered on said shaft and extending into said casing upon which the disk 13 is 90 connected, a disk 23 threaded on said shaft, a notched disk 24 mounted on said sleeve and 95 connected to the disk 23, and a spring actuated pawl constructed to engage said notched disk and prevent it from turning, substantially as set forth.

In testimony whereof we affix our signatures 100 in presence of two witnesses.

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HERMAN STARCK.

Witnesses:

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EDWARD E. LONGAN.