

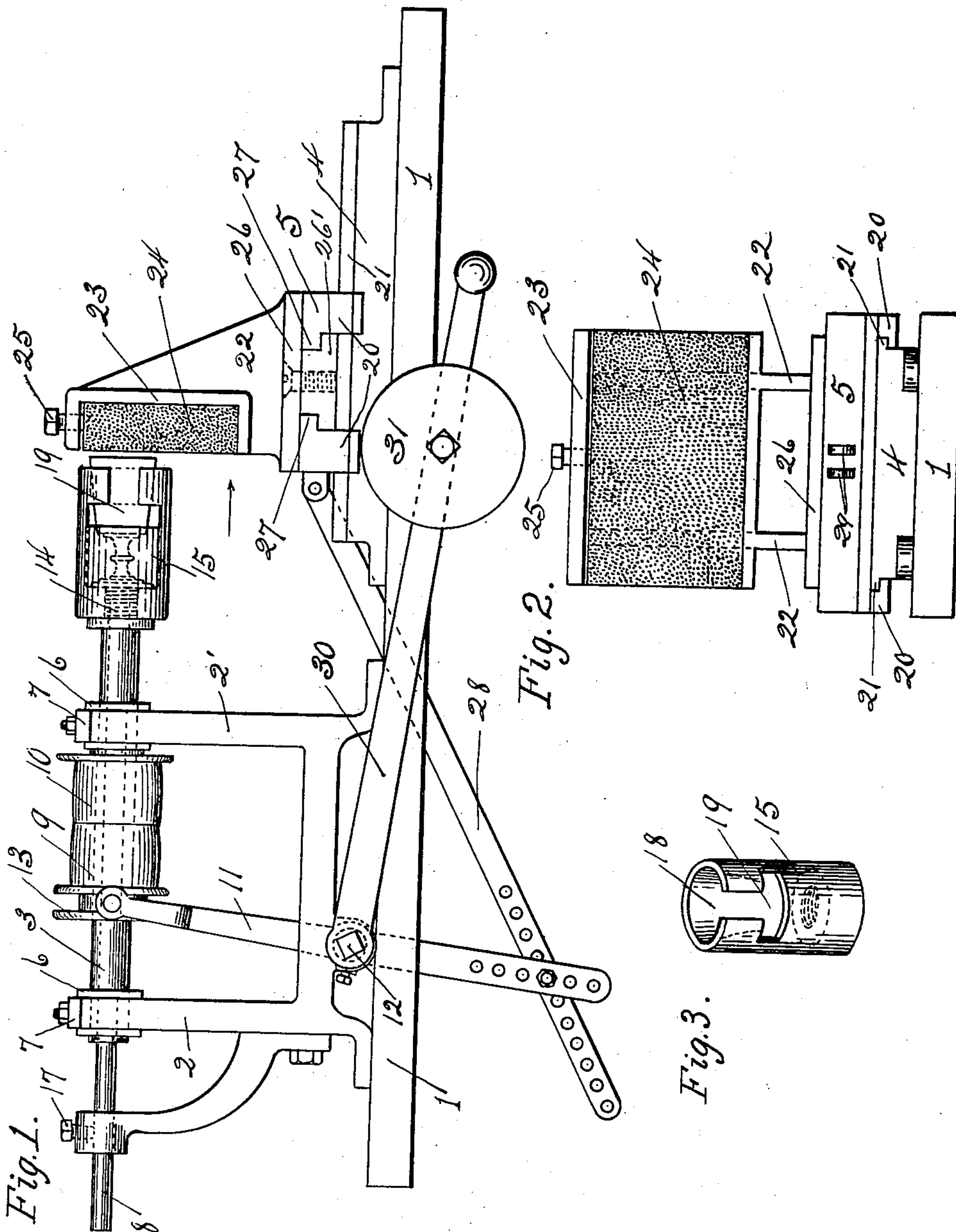
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J. B. LOBET.  
GRINDING OR POLISHING MACHINE.

APPLICATION FILED APR. 23, 1903.

NO MODEL.



Witnesses:  
David C. Walter  
Arthur H. Goldhamer.

Inventor.  
John B. Lobet,  
By David Owen  
His attorney.



# UNITED STATES PATENT OFFICE.

JOHN B. LOBET, OF TOLEDO, OHIO.

## GRINDING OR POLISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 742,688, dated October 27, 1903.

Application filed April 23, 1903. Serial No. 153,983. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN B. LOBET, a subject of the King of Belgium, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Grinding or Polishing Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates especially to improvements in machines of the class adapted for grinding and polishing the rough edges of light blown glassware—such as tumblers, goblets, and other analogous objects; and it has for its object to provide a device of the class described whereby a rotatable object-carrying chuck and a grinding or polishing medium may be caused to move in unison toward or away from each other by the operation of a single lever or crank and whereby the object being carried by said chuck will be ejected simultaneously with the receding movement thereof and also to provide a machine that is cheap and simple in its construction and capable of adjustment to receive and operate upon objects of various sizes.

While the essential features of my invention are necessarily susceptible of modification, the preferred embodiment thereof is illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal elevation of my invention. Fig. 2 is a transverse elevation of the grinding or polishing medium and its carriage, and Fig. 3 is a perspective view of a form of chuck adapted to receive and hold a goblet or other object of similar shape in which the base is of greater diameter than the top.

Referring to the drawings, 1 represents the base, on which are mounted the standards 2 and 2' and the track 4, which support, respectively, the chuck-carrying shaft 3 and the longitudinally-movable carriage 5.

The standards 2 and 2', which are strengthened by suitable transverse (not shown) and

longitudinal braces, are substantially inverted-V-shaped and carry in their upper portions the journal-boxes 6 6, which are retained therein by means of the bolt-pressed caps 7 7 and form bearings for the chuck-carrying shaft 3. The shaft 3, which is provided with a central bore extending its entire length to receive the ejecting-rod 8, is adapted to have a longitudinal as well as a rotary movement in the bearings 6 6 and has secured to it intermediate of said bearings the tight pulley 9, over which a drive-belt passes to transmit motion to said shaft, and the loose pulley 10. A vertical lever 11 is centrally secured to the transverse shaft 12, mounted transversely of the longitudinal braces between the standards 2 and 2', and has its upper end forked and provided with studs to adapt it to loosely engage the peripherally-grooved guide-wheel 13, rigidly secured to the shaft 3.

The inner end of the shaft 3 is threaded, as shown at 14, to receive an object-carrying chuck 15. These chucks are cup-like in form and made in various shapes and sizes to adapt them to receive tumblers, goblets, or other analogous objects. The threaded opening provided through the bottom of the chuck 15 to receive the threaded end of the shaft 3 extends entirely through the bottom thereof to enable the ejecting-rod 8, which is rigidly secured at one end to the bracket 16 by means of the set-screw 17, to enter the interior of the chuck and eject the object carried thereby when the chuck is moved away from the polishing-surface, as hereinafter described.

The form of chuck shown in Figs. 1 and 3 is particularly adapted for holding a goblet or other object of similar shape having a base of greater diameter than its top. To adapt it to receive an object of this shape, the chuck is formed with a circular chamber 18, having a substantially T-shaped opening 19 near its top, through which the neck and base of the goblet are to be passed as they are inserted in or withdrawn from said chuck. The walls of the chamber 18 below the transverse portion of the opening 19 are substantially parallel to allow the base of the goblet to have a free longitudinal movement therein, while the wall of the portion of the chamber 18 above said opening is tapered outwardly to



adapt it to conform to the shape of the goblet and hold the same rigid therein while being operated upon.

The carriage 5, which is supported above 5 and adapted to have a longitudinal movement on the track 4, is retained and prevented from lateral movement thereon by means of the L-shaped fingers 20, engaging the laterally-disposed longitudinal flanges 21 of the track 4. Mounted above the carriage 5 on 10 the vertical standards or supports 22 22 is the vertical rectangular pocket or casing 23, in which the polishing and grinding medium 24 is adapted to be supported and retained by means of the set-screw 25. It will be noted 15 that the standards 22 22 are mounted on a base 26, which is retained and adapted to have a lateral movement on the carriage 5 by reason of the T-shaped guide 26' on the 20 under side of said base having a sliding engagement with the retaining-strips 27 of the carriage 5.

To cause a simultaneous advancing or receding movement of the chuck 15 and the 25 polishing medium 24, I provide the rod 28, which is pivotally connected at one end to the lower arm of the lever 11 and at its other end to the studs 29, located on the forward part of the carriage 5, the meeting ends of 30 the said lever and rod being each provided with a series of bolt-receiving apertures to adapt the same to be adjusted so as to cause a greater or less opening movement of the said parts and adapt them to operate upon 35 objects of various sizes and lengths. The oscillating movement of the lever 11 is controlled by the crank 30, which is secured to the end of the shaft 12 and normally held in the position shown in Fig. 1 by means of a 40 weight 31, adjustably mounted thereon. I do not confine myself to the use of the weight 31 for this purpose, as other suitable means may be employed.

In the operation of my machine it will be 45 apparent that after the object which is held in the chuck has been operated upon the crank 30 is raised by hand from the position shown in Fig. 1, in which it is normally retained by the weight 31 or other suitable 50 means, thus causing the shaft 3, with the chuck 15 thereon, and the polishing medium 24 to simultaneously recede from each other and the goblet or other object to be ejected from said chuck by the stationary ejecting- 55 rod 8, thereby placing the machine in readiness to receive another article. As the shaft 3 recedes from the polishing medium 24 the drive-belt passes from the tight pulley 9 to the loose pulley 10, thus stopping the rota- 60 tion of said shaft and chuck to enable a new article to be placed therein.

It is obvious that such changes in the form, proportion, and minor details of construction of the parts as fairly fall within the spirit 65 and scope of my invention may be made without departing from the spirit or sacrificing any of the advantages thereof.

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

1. A glass-polishing machine having a shift- 70 able horizontal shaft, an object-carrying chuck secured to and rotated by said shaft, means for shifting said shaft and chuck, tight and loose pulleys on said shaft, and a 75 non-rotatable polishing medium mounted in adjacent vertical position to the face of said chuck and adapted to have a longitudinal and lateral movement with relation thereto.

2. A glass-polishing machine having a shift- 80 able shaft, an object-carrying chuck secured to and rotated by said shaft, a lever for shifting said shaft and chuck, tight and loose pulleys mounted on said shaft, a polishing 85 medium mounted in adjacent parallel position to the face of said chuck and adapted to have a longitudinal movement when said lever is oscillated and means for oscillating said lever.

3. A machine of the class described comprising a shiftable shaft, a chuck secured to 90 and rotated by said shaft, means for rotating said shaft, a longitudinally-movable carriage mounted in alinement with and in adjacent 95 position to said chuck, a polishing medium carried by said carriage, and means provided for causing said chuck and carriage to simultaneously advance toward or recede from each other.

4. A machine of the class described comprising a shiftable shaft, an object-carrying 100 member secured to and rotated by said shaft, tight and loose pulleys on said shaft, a longitudinally-movable carriage mounted in advance of said member, a polishing medium 105 carried by and laterally movable on said carriage, and means for causing said object-carrying member and carriage to simultaneously recede from and advance toward each other.

5. A machine of the class described comprising a shiftable shaft, an object-carrying 110 member secured to and rotated by said shaft, means for rotating said shaft, a lever engaging with and adapted to shift said shaft, a longitudinally-movable carriage mounted adjacent to said object-carrying member, a pol- 115 ishing medium carried by said carriage, means connecting said lever and carriage for causing said object-carrying member and carriage to simultaneously recede from or move toward 120 each other and a crank for oscillating said lever.

6. A machine of the class described comprising a standard, a hollow shaft supported 125 by and longitudinally movable on said standard, a chuck secured to and rotated by said shaft, tight and loose pulleys on said shaft, a lever for causing a longitudinal movement of said shaft, a longitudinally-movable carriage 130 mounted in alinement with said chuck and having its movement controlled by said lever, a laterally-adjustable polishing medium carried by said carriage, and a rigid rod extending through said hollow shaft and adapt-



ed to project into said chuck when said shaft is moved longitudinally in one direction.

7. A machine of the class described having a horizontal shaft adapted to have a longitudinal movement in its bearings, a chuck secured to and rotated by said shaft, tight and loose pulleys on said shaft, a lever fulcrumed adjacent to and having a loose engagement with said shaft, a polishing medium mounted in advance of said chuck and adapted to have a longitudinal movement with relation thereto, connection between said lever and polishing medium, said chuck and polishing medium adapted to have a longitudinal movement in opposite directions when said lever is oscillated, and means for normally retaining the said parts in one position, substantially as described.

8. A machine of the class described having a hollow shiftable shaft, a chuck secured to and rotated by said shaft, a rigid rod extended through said shaft and adapted to project into said chuck when said shaft is shifted in one direction, tight and loose pulleys on said shaft, a lever for shifting said shaft, a polishing medium mounted in advance of said chuck and adapted to have a longitudinal and lateral movement with relation thereto, connection between said lever and polishing medium, a crank for oscillating said lever and causing said shaft and polishing medium to have opposite longitudinal movements, and means for normally retaining the same in one position.

9. The combination in a machine of the class described of a shiftable shaft, a chuck carried by said shaft, a longitudinally-movable polishing medium mounted in advance of said chuck, and pivotal connection between said shaft and polishing medium adapted to cause an opposite simultaneous movement of said parts.

10. In a machine of the class described, the combination with a longitudinally-movable shaft, a chuck secured to and rotated by said shaft, and a lever having loose engagement therewith, of a polishing medium mounted in advance of said chuck and adapted to have a longitudinal and lateral movement with relation thereto, connection between said lever and polishing medium to cause a simultaneous movement of said shaft and medium, and means for oscillating said lever, substantially as described.

11. In a machine of the class described, the combination with a shiftable shaft, an object-carrying member secured to and rotated by said shaft, and a lever for shifting said shaft, of a polishing medium mounted in advance of said object-carrying member and adapted to have a longitudinal and lateral movement with relation thereto, connection between said lever and polishing medium, and means provided for oscillating said lever and causing said member and polishing medium to simultaneously move toward or recede from each other, substantially as described.

12. In a machine of the class described, the

combination with a hollow shiftable shaft, a chuck carried thereby, a rigid ejecting-rod in said shaft, and a lever in loose engagement with and adapted to shift said shaft, of a longitudinally and laterally movable carriage mounted in advance of said chuck, a polishing medium on said carriage, connection between said lever and carriage to adapt a movement of said lever to cause opposite movements of said shaft and polishing medium, a crank for oscillating said lever, and means for normally retaining said parts in one position, substantially as described.

13. In a machine of the class described, the combination with a hollow shiftable shaft, a chuck carried thereby, a rigid rod in said hollow shaft, tight and loose pulleys in said shaft, and a lever for shifting said shaft, of a vertically-disposed polishing medium, a laterally-movable carriage supporting said medium in horizontal alinement with said chuck, a second carriage movably mounted on a longitudinal track and supporting said first carriage, connection between said lever and last-mentioned carriage, and means for oscillating said lever and causing said chuck and polishing medium to advance toward and recede from each other, substantially as described.

14. In a machine of the class described, the combination with a shaft, a polishing medium mounted in horizontal alinement therewith, and means for causing one of said parts to recede from and advance toward the other, of an object-carrying chuck secured to and rotated by said shaft, said chuck having a chamber therein of greater diameter at its lower than its upper portion and provided with a substantially T-shaped opening in its side for the insertion of an object, substantially as described.

15. In a machine of the class described, the combination with a shiftable shaft, a polishing medium mounted in horizontal alinement therewith, and means for causing said parts to have opposite longitudinal movements, of an object-carrying chuck secured to and rotated by said shaft, said chuck having a chamber therein of greater diameter at its lower than its upper portion and provided with an opening in its top, a second opening so shaped as to permit the neck and base of a goblet to be passed therethrough provided in its side, substantially as described.

16. A machine of the class described having a shiftable shaft, a chuck secured to and rotated by said shaft, tight and loose pulleys on said shaft, a lever for shifting said shaft, a longitudinally-movable polishing medium mounted in advance of said chuck, connection between said lever and polishing medium, means for oscillating said lever and causing said chuck and polishing medium to recede from and move toward each other, and means for adjusting said connection and lever to cause a greater or less receding movement of said parts, substantially as described.



17. The combination in a machine of the class described of a shiftable shaft, a chuck carried by said shaft, a longitudinally-movable polishing medium in advance of said chuck, connection between said shaft and medium adapted to cause an opposite simultaneous movement of said parts when said shaft is shifted, and means for regulating the longitudinal movement of said polishing medium with relation to said chuck.

18. In a machine of the class described, an object-carrying chuck adapted to be rotated by said machine and having a substantially

T-shaped opening in its side, the inner wall of said chuck being parallel below the transverse portion of said opening and tapered above said portion to conform to the taper of the object being held, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN B. LOBET.

Witnesses:

JOSEPH ROSENBERGER,  
EMIL J. VOGELSANG.