No. 683,303 Patented Sept. 24, 1901.

J. LEHUREAU & G. PORCHER.

CHUCK FOR LATHES OR SIMILAR MACHINES.

(Application filed Jan. 16, 1901.)

(No Model.)

Fig. 1.

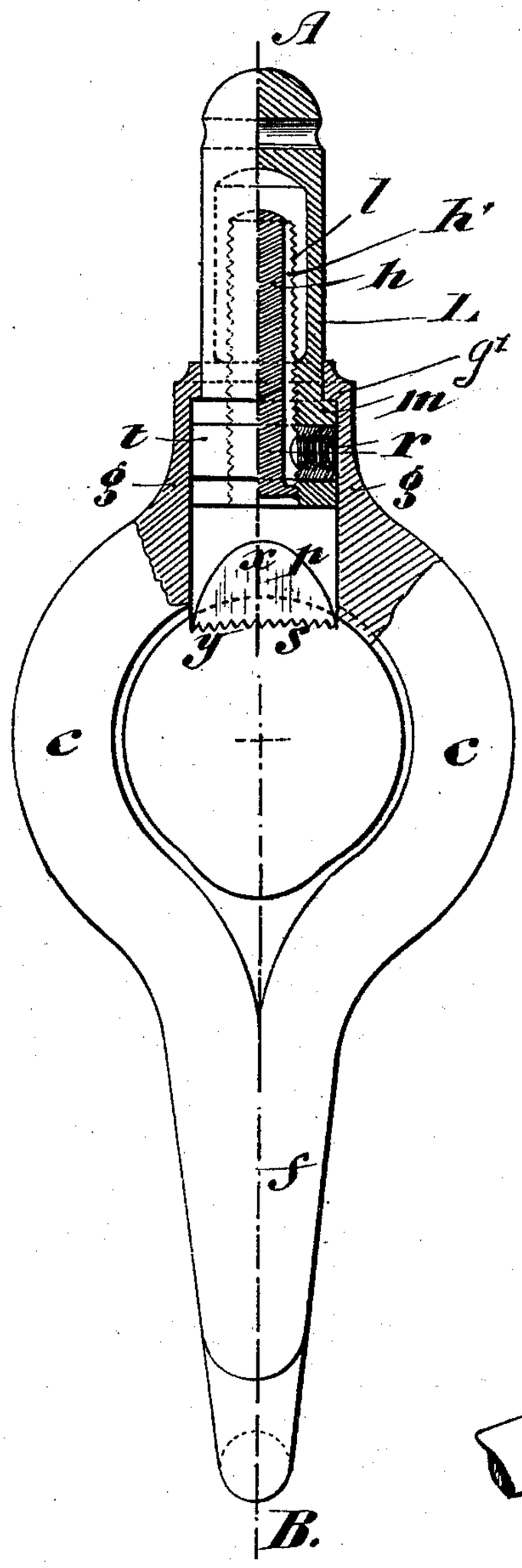
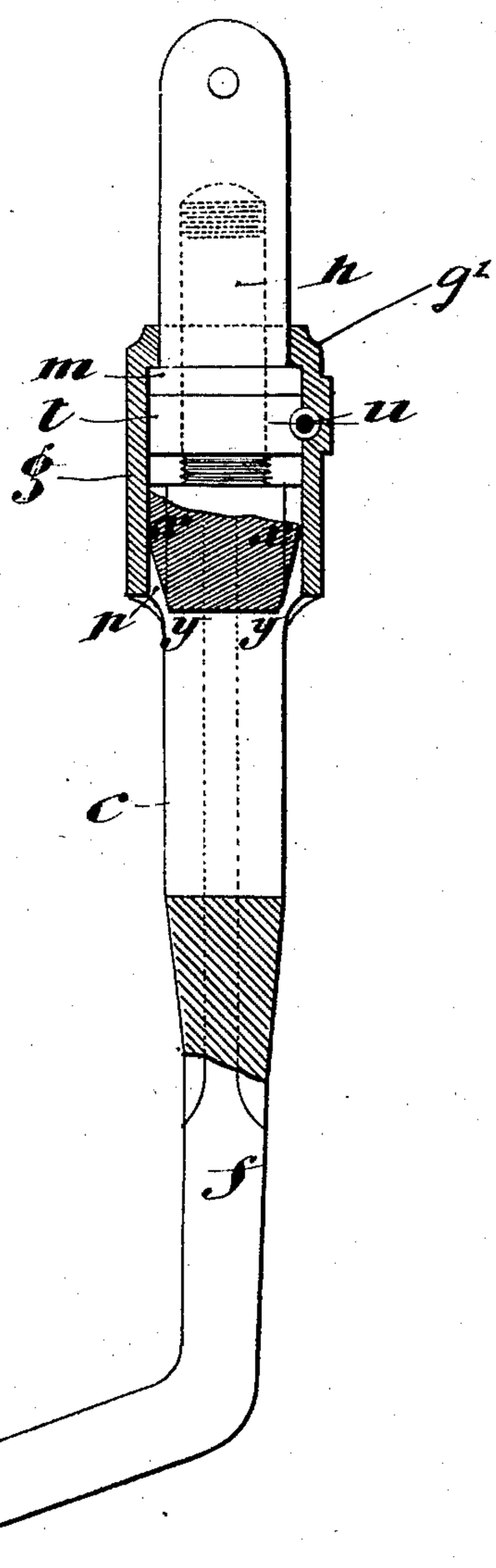


Fig. 2.



Witnesses:
J. D. McMahon.
C. Hamisch.

Inventors:
Jacques Lehureau
Georges Porcher
by B. Singer Att'y.

UNITED STATES PATENT OFFICE.

JACQUES LEHUREAU, OF CATEAU, AND GEORGES PORCHER, OF PARIS, FRANCE.

CHUCK FOR LATHES OR SIMILAR MACHINES.

SPECIFICATION forming part of Letters Patent No. 683,303, dated September 24, 1901.

Application filed January 16, 1901. Serial No. 43,446. (No model.)

To all whom it may concern:

Be it known that we, JACQUES LEHUREAU, a resident of Cateau, (Nord,) and GEORGES PORCHER, a resident of Paris, France, citizens of the French Republic, have invented certain new and useful Improvements in Chucks for Lathes or Similar Machines, of which the following is a specification.

This present invention relates to machine-tools, such as lathes and the like, and more particularly to chucks therefor, the object being to provide an attachment of this kind which is perfectly balanced in any position when in use and the clamping device of which is prevented from being deteriorated or injured in operation.

The invention consists of the construction and novel combination of parts fully described and claimed hereinafter.

In the accompanying drawings, Figure 1 is an elevation of the improved attachment with parts of the clamping mechanism shown in section. Fig. 2 is a side section of same through line A B of Fig. 1.

Like letters refer to like parts throughout both views.

Referring to the drawings, *c* indicates the body of the chuck, made of steel and provided with an integral tail *f*, which may be straight or curved, as desired. The purpose of said tail is to counterbalance the weight of the clamping device when the chuck is in use, which will be particularly appreciated in screw-cutting lathes, and to serve as a rest for the attachment during the feeding thereof, whereby the clamping mechanism cannot be injured or deteriorated.

The body *c* is provided at its upper part with a hollow socket *g*, having an upper horizontally-projecting flange *g'*, against which bears an annular shoulder *m* of a socket L, inserted into said socket *g*, as clearly shown in Fig. 1. The lower reinforced end of the socket L is provided with internal screw-threads *l*, engaging corresponding threads of a screw-spindle *h*, movably arranged within the socket L, and the lower end of which is provided with a clamping-head *p*, having a serrated engaging surface *s*. The screw-threaded spindle *h* is provided with a longitudinal groove *h'*, engaging a pin *r*, carried by a stationary washer *t*, secured in place by means of a transverse pin *u*, Fig. 2, and serving to hold the socket L against vertical movements.

The head *p* of the screw holds the object to be worked upon in the chuck. It is of cylindrical shape in the upper portion, which slides in the socket *g* and serves also as a guide. Two plane parts *x y x y*, situated on each side of the head, keep it from interfering with the tool operating on the object. The said head *p* is provided with grooves *s* in its lower part. These grooves serve to regulate the degree of adherence or pressure.

When it is desired to clamp an article to be turned or otherwise operated on in the chuck, all that is necessary to do is to turn the socket L in the proper direction, whereby the screw-spindle *h* and its head *p* are moved downwardly, the pin *r*, engaging groove *h*, preventing said spindle from being rotated.

Having fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a lathe attachment of the character described, the combination with the perforated body having a depending tail and a socket formed in its upper part, of a vertically-movable spindle fitted in said socket, a clamping-head on the lower end of the spindle and means engaging with the spindle above its head for raising and lowering the same, substantially as set forth.

2. In a lathe attachment of the character described, the combination with the perforated body, of a depending tail made integral therewith, a socket at the upper part of said body, a suitable socket rotatably mounted in the socket on the body, internal screw-threads in said rotatable socket, a screw-spindle engaged by said screw-threads, a clamping-head on the lower end of the screw-spindle, serving as a guide for the rectilineal descent of the said spindle and as a grip-piece, means for holding the rotatable socket against longitudinal movement, and means for holding the screw-spindle against rotary movement, substantially as set forth.

3. In a device for the purpose described, the combination of an apertured body having a passage extending from the aperture there-

in through one end, a clamping-screw extending into said passage, and provided with an external thread, an internally-threaded sleeve engaging said threaded stem and mounted to turn freely in said passage in the body, and means for preventing rotation of the clamping-spindle.

4. In a device for the purpose described, the combination of an apertured body having a passage extending from the aperture therein through one end, an internally-threaded sleeve rotatably mounted in said passage and projecting beyond the outer end thereof, means for preventing longitudinal movement of said sleeve within said passage, an externally-threaded spindle extending into and engaged by the threads in said sleeve, and a clamping-head at the inner end of said spindle adapted to be adjusted by said sleeve and spindle transversely of the aperture in the body.

5. In a device of the character described, the combination with the apertured body, of a clamping-head having a threaded stem mounted in a socket or passage formed in said body and opening into the aperture therein, an internally-threaded sleeve rotatably mounted in said socket and engaging said spindle, means for preventing longitudinal movement of the sleeve, and means for preventing rotary movement of the clamping-head and spindle.

6. In a device of the character described, the combination of the apertured body having the depending tailpiece and having a socket or passage extending from the aperture in the body through the upper end thereof, a clamping-head having an externally-threaded spindle extending into said socket, an internally-threaded sleeve rotatably mounted in said socket and engaging the spindle therein, and a collar surrounding the spindle within said socket and clamping the sleeve therein against longitudinal movement and having means engaging the spindle of the clamping-head to prevent rotation thereof.

In testimony whereof we have hereunto set our hands in presence of two witnesses.

JACQUES LEHUREAU.
GEORGES PORCHER.

Witnesses:
ADOLPHE STURM,
EDWARD P. MACLEAN.