J. Sutter,

Lathe Chuck,

No. 45,359. Patented Dec. 6, 1864.

Fig. 3.

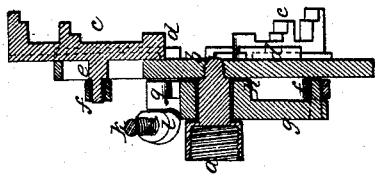


Fig. 2.

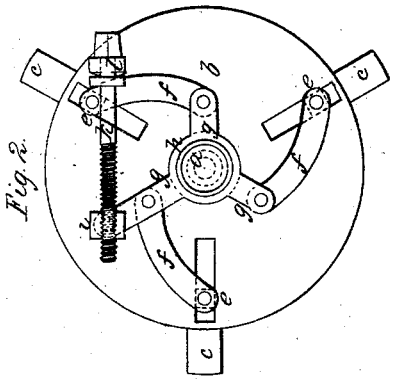


Fig. 4.

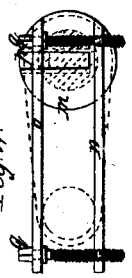
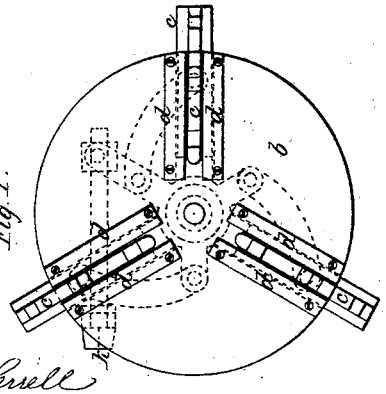


Fig. 1.



Witnesses;
Lemuel W. Serrell
Thos. Geo. Harold

Inventor;
Joseph Sutter

UNITED STATES PATENT OFFICE.

JOSEPH SUTTER, OF NEW YORK, N. Y.

IMPROVEMENT IN CHUCKS FOR LATHES.

Specification forming part of Letters Patent No. **45,359**, dated December 6, 1864; antedated November 23, 1864.

To all whom it may concern:

Be it known that I, JOSEPH SUTTER, of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Chucks for Lathes; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a front elevation of said chuck. Fig. 2 is a back elevation, and Fig. 3 is a vertical section, of the same.

Similar marks of reference denote the same parts.

The nature of my said invention consists in a compound toggle joint motion applied to draw together three or more clamping-slides on the face of the chuck, to confine and at the same time center any article placed between said slides, said toggle joint motion being derived from a hub with arms acted on by a screw.

In the drawings, *a* is the socket to screw upon or otherwise attach to the revolving lathe-mandrel.

b is the face-plate of the chuck.

c c c are clamps set to slide radially in the slides *d d*, affixed on or formed in the face-chuck *b*. Behind these clamps *c c c* are studs *e*—one on each clamp—that project through slots or mortises in the face-plate *b*.

f f f are links extending from the studs *e* to the arms *g g g* of the hub *h*, that surrounds *a*, and one of the arms *g* is extended, and receives a nut, *i*, through which the screw *k* passes.

l is a fixed stud on *b*, taking a neck in the screw *k*, so that it may be turned freely, but at the same time is held in position.

It will now be seen that by turning the hub *h* by the screw *k* the respective arms *g* and links *f* form toggle-joints, to force out or draw in the sliding clamps *c* and center and hold any article, or release the same by turning the screw *k* in the opposite direction.

Fig. 4 shows a clamp for holding articles—such as a crank—in this chuck. *m* is a circular base, to be grasped and held between the ends of the clamping-slides *c*. *n* is a bar affixed to the said base, and *o* is a moving bar with a block, *p*, sliding in a dovetail groove in *m*. *q q* are screws acting to clamp any article between *m* and *n*, either before or after the base *m* has been secured between the slides *c*.

What I claim, and desire to secure by Letters Patent, is—

The hub *h*, arms *g*, and links *f*, in combination with the screw *k* and sliding clamps *c*, substantially as and for the purposes specified.

In witness whereof I have hereunto set my signature this 30th day of March, A. D. 1864.

JOSEPH SUTTER.

Witnesses:

LEMUEL W. SERRELL,
THOS. GEO. HAROLD.