G. O. Buckley.

Self-Centering Lathe Chuck.

No. 112,119. Patented Feb. 28, 1871.

Fig. 1.

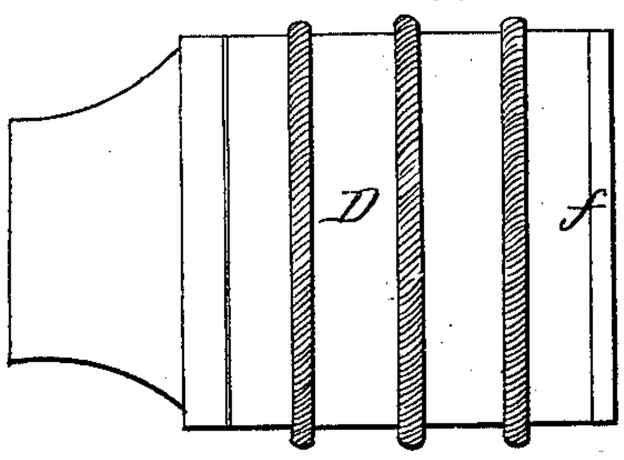

Fig. 2.

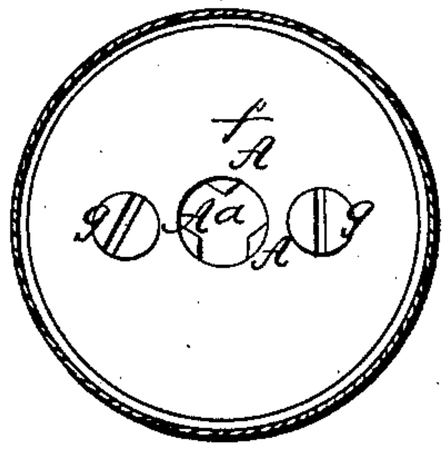

Fig. 3.

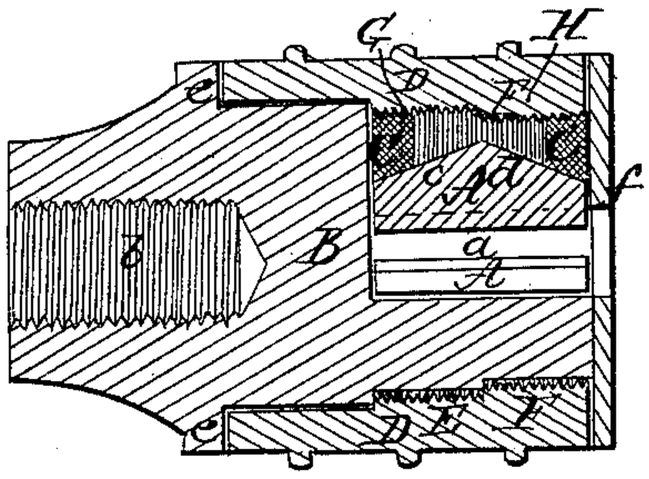

Fig. 4.

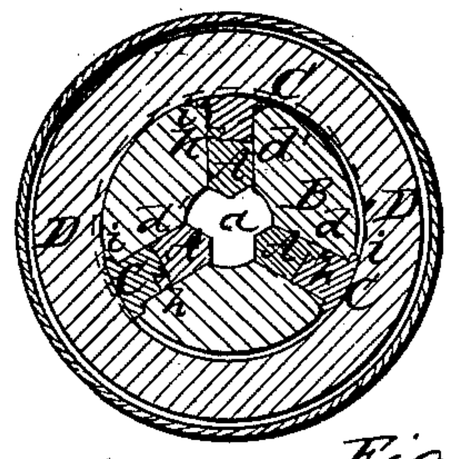

Fig. 12.

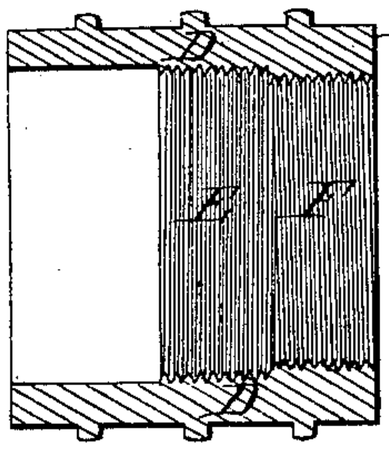

Fig. 5.

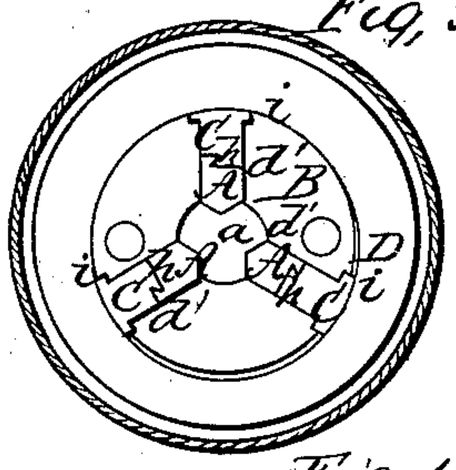

Fig. 10.

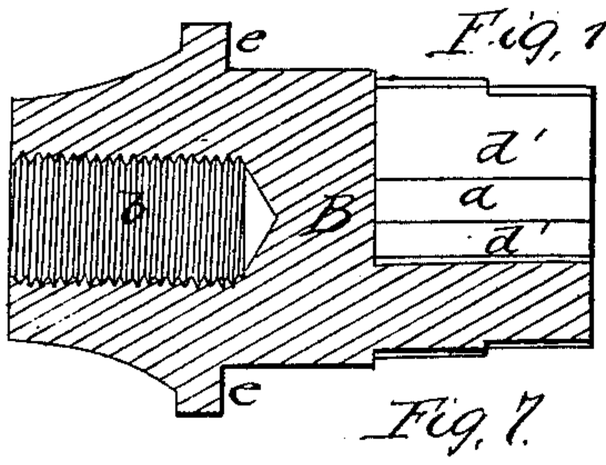

Fig. 11.

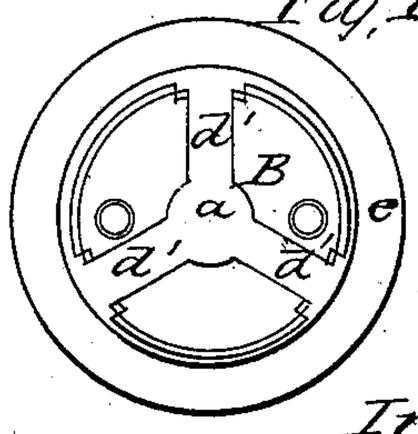

Fig. 7.

Fig. 6

Fig. 8

Fig. 9.

Witnesses,
S. N. Piper
L. N. Holler

Inventor;
Geo. O. Buckley
by his attorney
R. H. Eddy

United States Patent Office.

GEORGE O. BUCKLEY, OF NEW BEDFORD, MASSACHUSETTS.

Letters Patent No. 112,119, dated February 28, 1871.

IMPROVEMENT IN SELF-CENTERING CHUCKS FOR LATHES.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, GEORGE O. BUCKLEY, of New Bedford, of the county of Bristol and State of Massachusetts, have invented a new and useful Self-Centering Chuck for Lathes; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing making part thereof.

Of such drawing—

Figure 1 is a side elevation;

Figure 2, a front-end view;

Figure 3, a longitudinal section; and

Figure 4, a transverse section of one of my said chucks.

Figure 5 is a front-end view of it as it appears with its cap-plate removed from the jaw-carrier.

In such drawing—

A A A denote three jaws arranged radially from a common center or axis, and within a carrier or cylindrical block, B, such being so as to admit of each jaw being moved in a radial direction toward and from the axis of the block, there being within the block a central aperture, *a*.

In the rear part of the block or jaw-carrier is a female screw, *b*, for the purpose of fixing the chuck upon the arbor of a lathe.

Each of the jaws has its outer edge shaped as two inclined planes, *c d*, which decline in opposite directions from the middle of the jaw.

Furthermore, there rests against inclined planes of each jaw two wedges, C C, arranged therewith, in manner as represented, and projecting beyond the jaw-carrier, the wedges being disposed within the radial chambers or slits *d'* for the reception of the jaws.

Encompassing the series of wedges and jaws is a tubular collar, D, that revolves freely on the jaw-carrier and against a shoulder, *e*, thereof, and is held in place against such shoulder by a cap-plate or disk, *f*, confined to the jaw-carrier by screws, *g g*.

Within the inner surface of the collar D a right female screw, E, and a left female screw, F, are cut or formed to engage with corresponding sectional male screws, G and H, cut on the next adjacent edges of the wedges, the arrangement of such screws and wedges being as represented.

Furthermore, each jaw is dovetailed to its two wedges, in manner as shown, at *h*, or so connected therewith as to be moved radially of the block in one direction or the other by such wedges, while they may be in the act of being moved either toward or away from each other by these screws and collar while the latter may be in the act of being revolved.

Each of the wedges, *c*, is also dovetailed within the jaw-carrier, as shown at *i i*.

Figure 6 denotes an end view; and

Figure 7, a side view of one of the jaws;

Figure 8 being a side view; and

Figure 9, an end view of one of the wedges.

Figure 10 is a longitudinal section; and

Figure 11, a front-end view of the jaw-carrier.

Figure 12 is a section of the collar representing its right-and-left screws.

By revolving the collar D the two wedges of each pair will be simultaneously moved in opposite directions rectilinearly, and by being supported so that they cannot move radially, and by being dovetailed to the jaw they will cause the jaw to have a lateral or radial movement.

All the jaws may thus simultaneously be moved either toward or away from the axis of the carrier, and thereby be clamped upon an article or unclamped from it, as occasion may require.

I am aware of the lathe-chuck described in the United States Patent No. 48,259, and make no claim thereto.

I therefore claim—

The jaw-carrier or center-block B, the rotary sleeve or collar D, the wedges C, and the jaws A, constructed, arranged, and combined as described and represented, the whole constituting a self-centering lathe-chuck.

GEO. O. BUCKLEY.

Witnesses:

R. H. EDDY,

J. R. SNOW.