

(No Model.)

J. H. BURDICK.

NUT LOCK.

No. 323,560.

Patented Aug. 4, 1885.

Fig. 1.

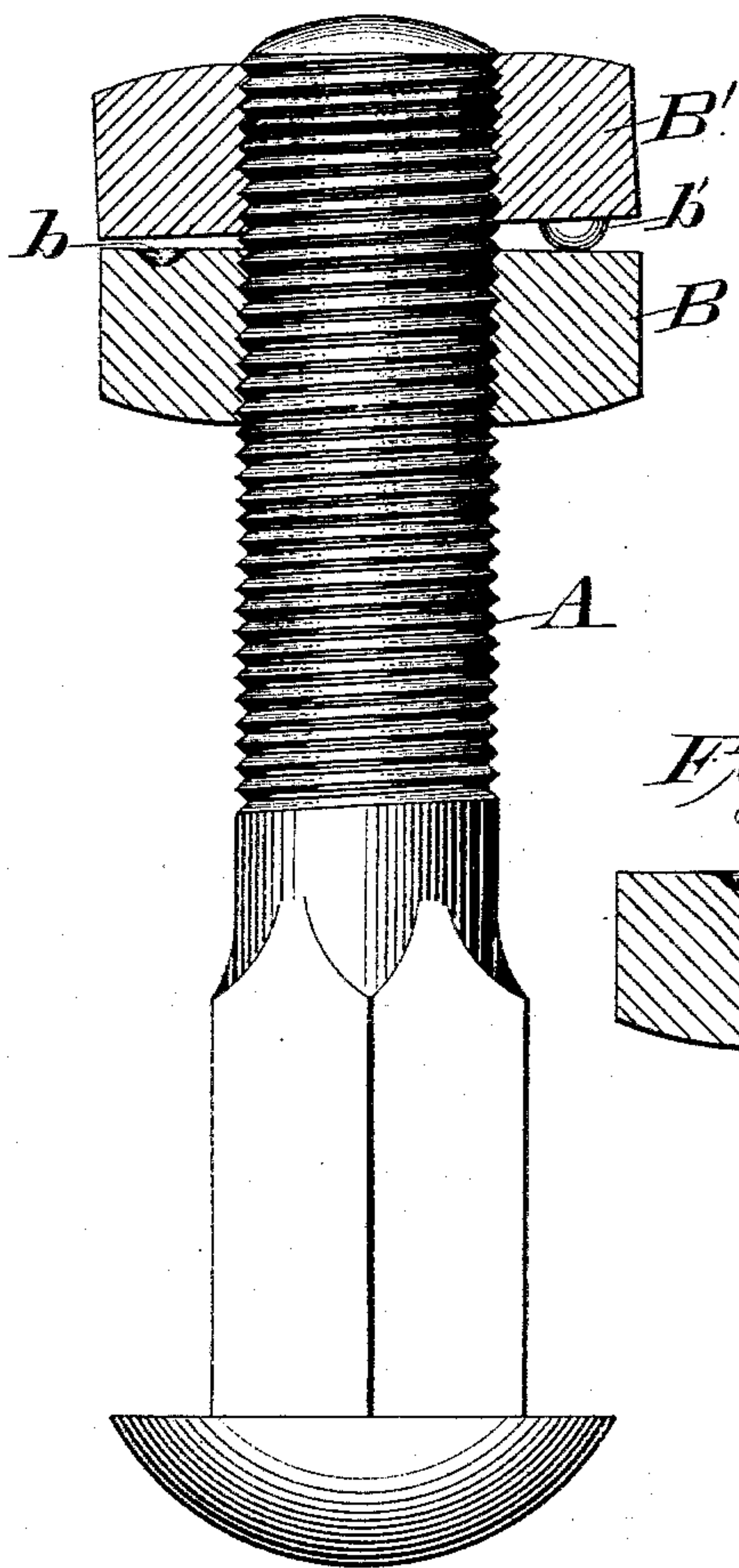


Fig. 2.

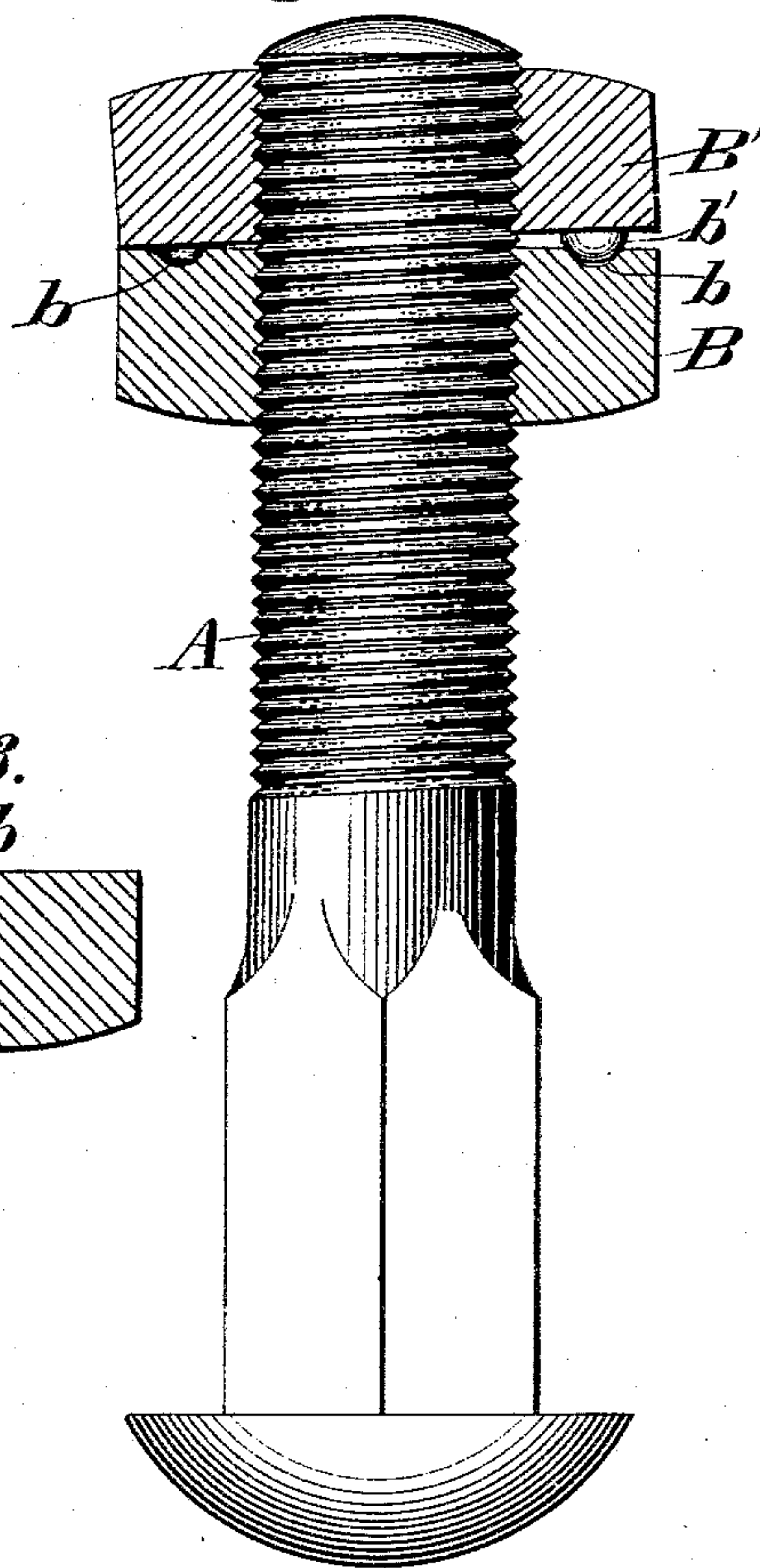


Fig. 3.

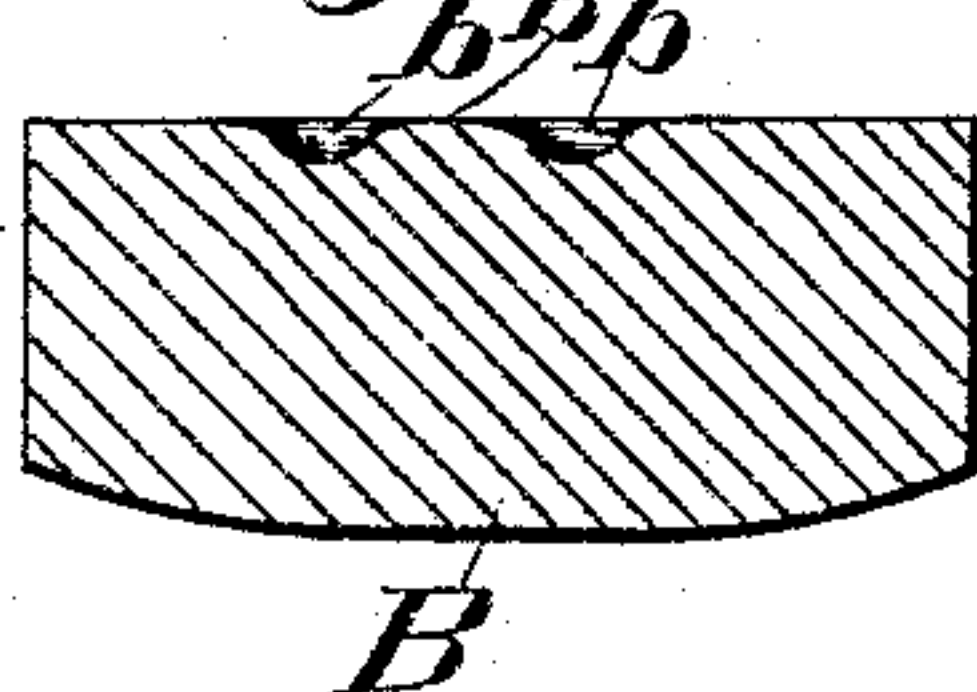


Fig. 4.

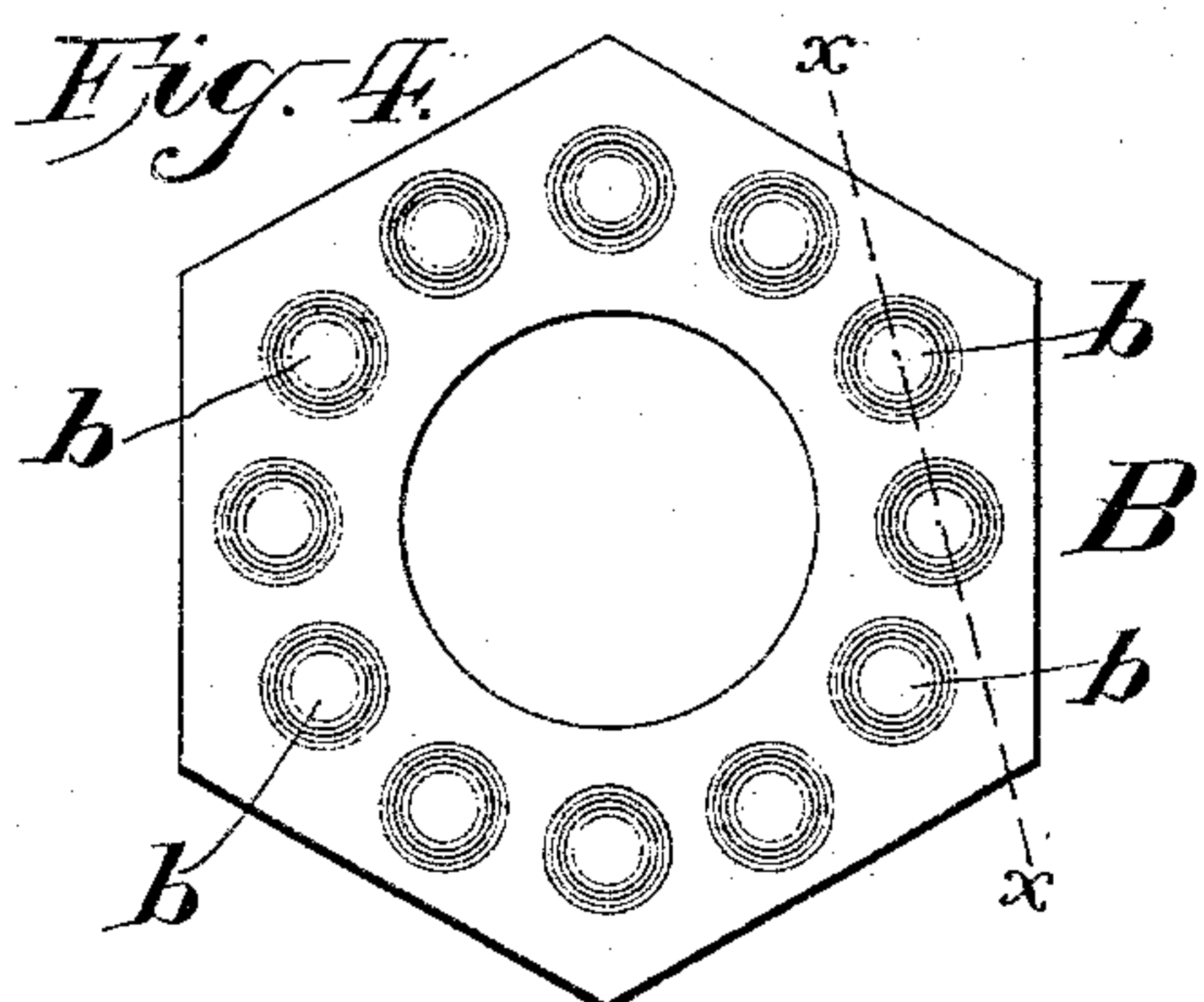
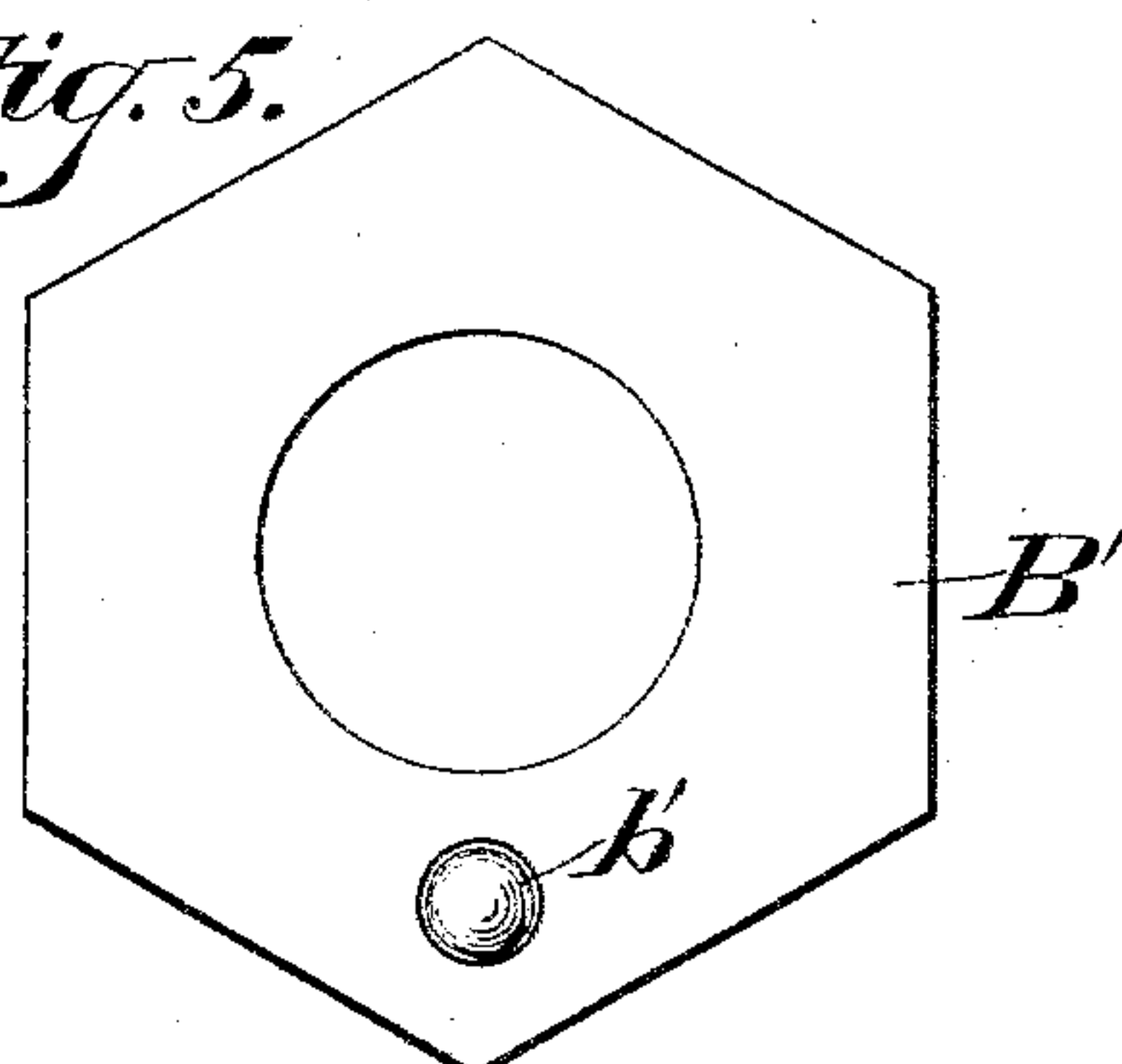


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

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NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 323,560, dated August 4, 1885.

Application filed December 9, 1884. (No model.)

To all whom it may concern:

Be it known that I, JUSTIN H. BURDICK, of Utica, in the county of Dane, and in the State of Wisconsin, have invented certain new and useful Improvements in Nut-Locks; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to improvements in nut-locks for screw-bolts, and will be fully described hereinafter.

In the drawings, Figure 1 is a cross-section of lock-nuts embodying my invention in position on a screw-bolt just before locking. Fig. 2 is a like view of the same in the locked position. Fig. 3 is a sectional view on line *xx* of Fig. 4. Fig. 4 is a top plan view of the main nut, and Fig. 5 is an under side plan view of the jam-nut.

A is the screw-bolt, and B is the main nut. In the outer face of this nut I provide a series of semi-spheroidal depressions or sockets, *b b*, the edges of and spaces between which are rounded out, as shown at *b²* in Fig. 3.

B' is the jam or lock nut, and this nut is provided on its inner face with a semi-spheroidal lug, *b'*, projecting from it at such a point as to correspond with the sockets *b* of the nut B, in either one of which the said lug is designed to lodge when the nuts are locked in position. If desired, a succession of two or three of the jam-nut lugs *b'* may be used. The main nut B having reached its seat against the bar, as usual, the nut B' is screwed against it as far as it can be done. As the projecting lug *b'* impinges against the outer face of the main nut B, it deflects it diagonally, as shown, so that the inner edge of its thread on one side—that is, on the side of the lug *b'*—will be pressed hard against the outer edge of the bolt-thread, while on the opposite side the outer edge of the nut-thread will impinge against the inner edge of the bolt-thread. The same deflection will also be caused, but in re-

verse direction, in the nut B', and the bolt A will in this manner be so tightly grasped that if care has been taken to turn the nut B' so that at the end of its travel the lug *b'* will fall in one of the sockets *b*, no amount of vibration will dislodge it therefrom, and nothing less than a strain equal to that of the wrench by means of which it was so locked will loosen the nut's hold on the bolt. Both the depressions *b b* and the lug *b'* may be made of another shape than that above described—such as oval or elliptical—without departing from the spirit of my invention.

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

1. The combination, with a main screw-bolt nut having a series of semi-spheroidal sockets in its outer face, of a locking-nut provided on its inner face with a semi-spheroidal lug adapted to lodge in either one of the sockets of the main nut at the end of its course, whereby the bolt is tightly grasped and the nuts locked in position around the same, substantially as set forth.

2. The combination, with a threaded bolt, of a main nut having a series of sockets arranged at regular intervals in its outer face, the spaces between each two consecutive sockets being rounded down to make a continuous curved surface all around the said nut, and a locking-nut provided on its inner face with a lug of shape corresponding to the sockets in the other nut, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Utica, in the county of Dane and State of Wisconsin, in the presence of two witnesses.

JUSTIN H. BURDICK.

Witnesses:

WILLIAM NELSON,
MARTHA S. NELSON.