

C. B. CLARK.
BUTT-HINGES.

No. 195,574.

Patented Sept. 25, 1877.

Fig. 1.

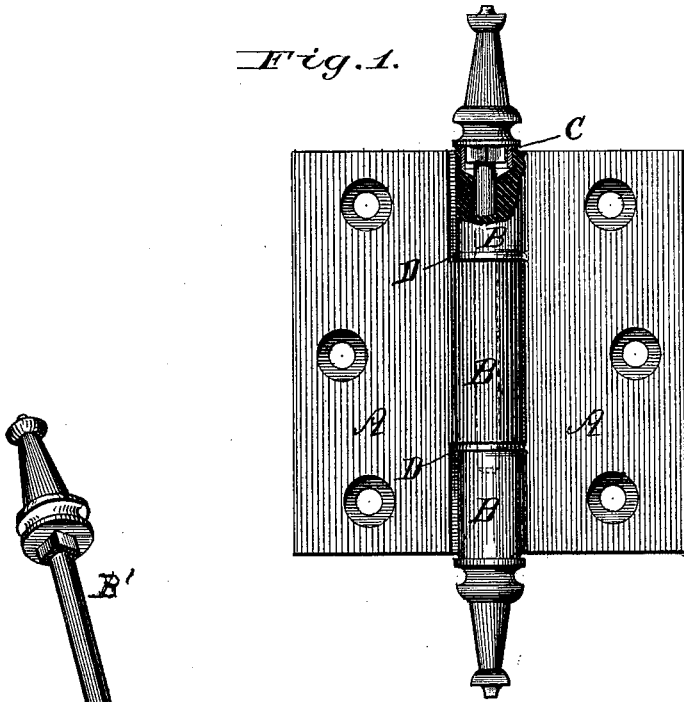


Fig. 2.

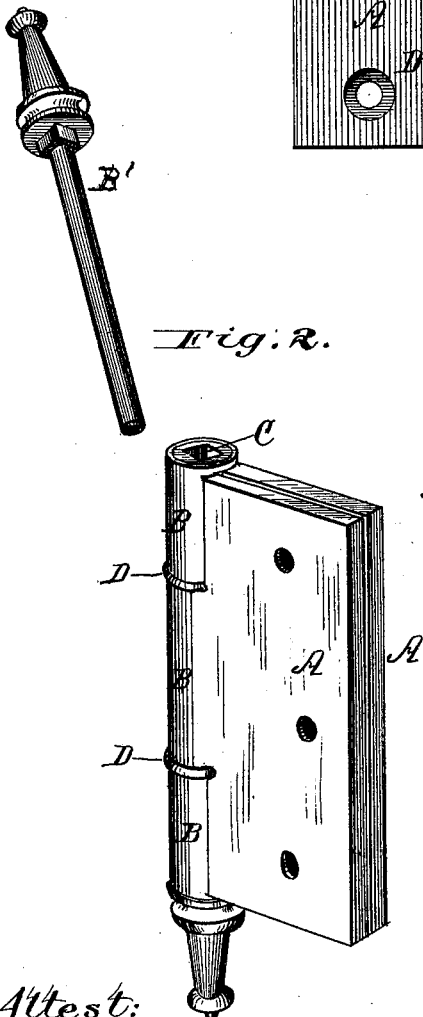
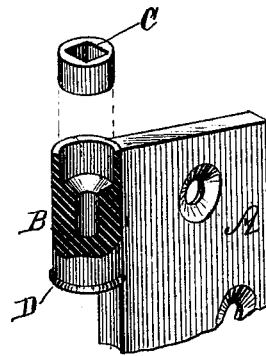


Fig. 3.



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CHARLES B. CLARK, OF BUFFALO, NEW YORK.

IMPROVEMENT IN BUTT-HINGES.

Specification forming part of Letters Patent No. 195,574, dated September 25, 1877; application filed August 15, 1877.

To all whom it may concern:

Be it known that I, CHARLES B. CLARK, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Butt-Hinge, of which the following is a specification:

This invention relates to certain improvements in butt-hinges; its object being to prevent the pintle from working up, in, and out the knuckle of the hinge by the motion of the movable leaf in opening and closing the hinge, and also to impart additional strength to the knuckle, and more effectually conceal the joints at the knuckle, and thereby add to the finish of the hinge.

To this end my invention consists in constructing the upper knuckle of the hinge with a rectangular or polygonal mortise or recess, and in giving the upper part of the pintle, just below the knob or head thereof, a shape corresponding with the mortise or recess in the knuckle, in which position it will sit and be locked in the mortise or recess of the pintle, and thereby be prevented from running loosely in the knuckle by the motion of the hinge, thus obviating all tendency of the pintle to work out of place, all as hereinafter more fully described and claimed.

In the drawings, Figure 1 represents a front elevation, partly in section, with the leaves opened; Fig. 2, a perspective view of the leaves and pintle; and Fig. 3, a perspective view of a portion of one of the leaves, partly in section.

The letter A represents the leaves of an ordinary butt-hinge, and B the knuckle-sections thereof, interlocking with each other, as usual. Any convenient number of such knuckle-sections may be employed, in the present instance three being represented, one on one leaf and two on the other.

The letter C represents a rectangular or polygonal recess, formed, at the time of casting, in the top of the upper knuckle-section, by means of a core, as usual.

The upper part of the pintle B', immediately below the knob, is shaped to conform to the recess or mortise in the knuckle, so as to fit and lock therein when said pintle is in place. Said portion may be formed upon the rod of the pintle itself in any convenient man-

ner, but, for convenience, is preferably formed on the lower part of the knob, below the shoulder of the same, at the time of casting said knob on the pintle.

The letter D represents a series of ribs or beads formed upon the knuckle section or sections of the hinge, the object of which is to increase the strength of the knuckle without adding weight to the hinge, and more effectually conceal the joints of the knuckle and impart a neat finish to the hinge. Said ribs may be formed upon one of the adjoining ends of the sections, or upon both, as may be desired; or they may be made at the lower end of one section and the lower end of the succeeding section, if found more convenient.

In the hinge as thus constructed, it will be perceived that the pintle is firmly locked in the upper section of the knuckle, and is effectually prevented from rotating therein. This effectually prevents all longitudinal play of the pintle in the knuckle while the hinge is working, as such longitudinal play is entirely due to the working back and forth of the pintle in a rotary direction by the movement of the leaves of the hinge.

It is evident that the polygonal mortise can be formed in the pintle-head, and its corresponding tenon formed on the knuckle of the hinge, without affecting the nature of the device; but I prefer to employ the order herein shown.

By forming the recess in the knuckle of the hinge, the distance of drilling is to this extent decreased, saving cost in the manufacture; and I am also enabled thereby to produce a secure pintle-hinge without unsightly or objectionable exterior appearance.

It will be observed that by my invention I avoid making any lateral opening or aperture through the knuckle; and, moreover, the lower end of the knob on the end of the pintle is of the same diameter as the upper end of the knuckle; hence, when the pintle is in place, the recess in the knuckle and the angular formation on the pintle below said knob are concealed from view, thus imparting a neat and attractive appearance to the hinge, while accomplishing the object of my invention.

By reason of the ribs or beads on the knuckle-sections, it will be perceived that additional

strength will be imparted to the knuckles without enhancing the weight of the hinge, and at the same time the joints will be more effectually concealed and additional beauty imparted to the hinge thereby.

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

A butt-hinge constructed with a rectangular or polygonal recess or mortise, C, in the upper knuckle-section B, in combination with a pintle, B', similarly shaped below its shoulder, and adapted to sit and lock into said re-

cess, said shoulder being constructed of a diameter equal to or larger than the exterior diameter of the knuckle, whereby the locking devices are concealed from view, as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

CHARLES B. CLARK.

Witnesses:

A. B. CLARK,

A. Y. BIDWELL.