

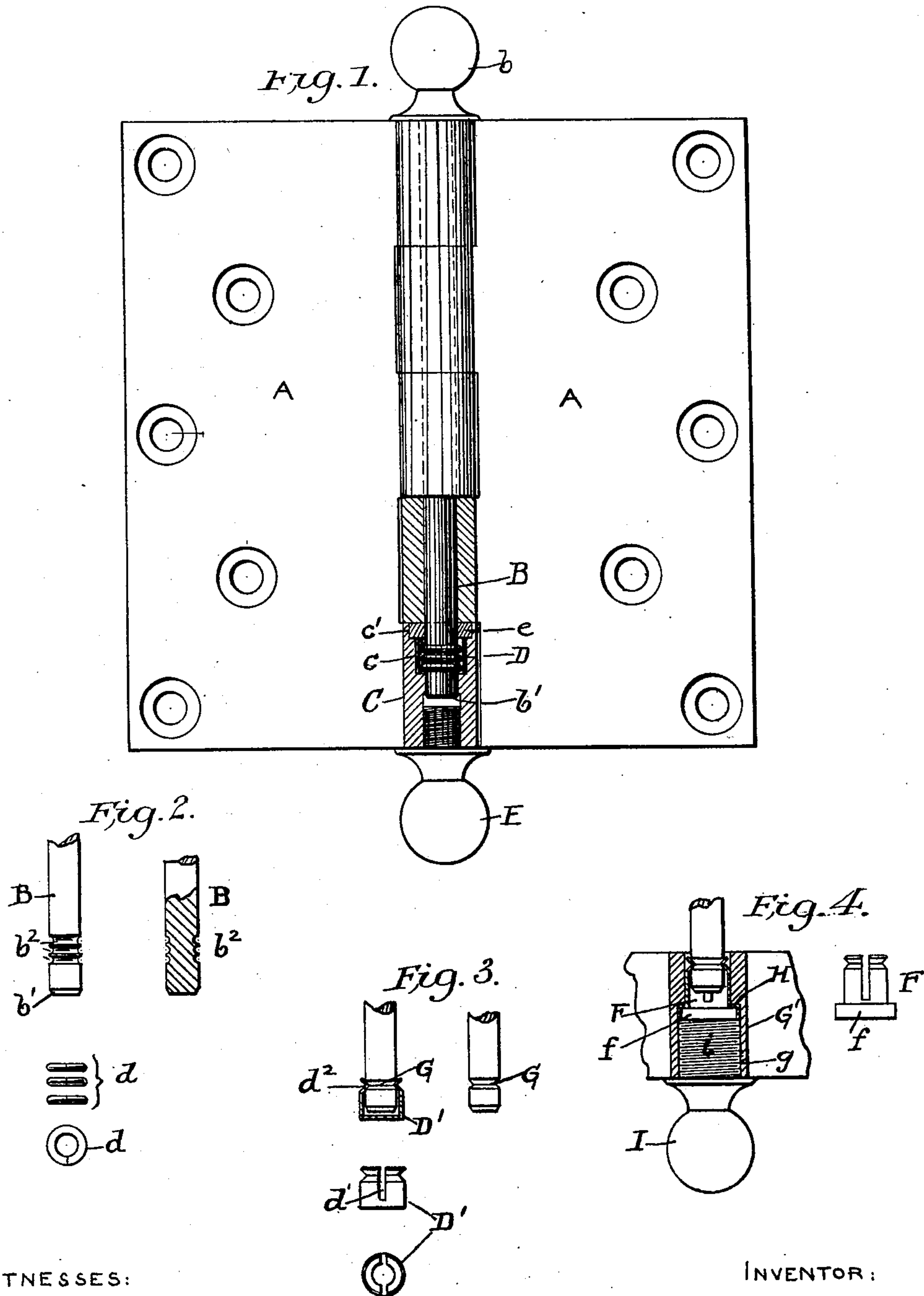
No. 636,331.

Patented Nov. 7, 1899.

C. GLOVER.
HINGE.

(Application filed June 23, 1899.)

(No Model.)



WITNESSES:

A. M. Mason
J. Conway

INVENTOR:

Chas. Glover.
by A. E. Hart
his attorney.

UNITED STATES PATENT OFFICE.

CHARLES GLOVER, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE
P. & F. CORBIN, OF SAME PLACE.

HINGE.

SPECIFICATION forming part of Letters Patent No. 636,331, dated November 7, 1899.

Application filed June 23, 1899. Serial No. 721,542. (No model.)

To all whom it may concern:

Be it known that I, CHARLES GLOVER, residing at New Britain, in the county of Hartford and State of Connecticut, have invented
5 Improvements in Butt-Hinges, of which the following is a specification.

My invention relates to that class of devices which are intended to secure the pintle in butt-hinges against accidental displacement
10 and is in the class of devices described and claimed in my application for Letters Patent of the United States which was filed February 23, 1899, and which is serially numbered 706,615.

15 The object of the within-described invention is to provide a means for accomplishing the above result; and it consists in a clip, located in a socket member, to receive the end of the pintle, the wall of the clip being wholly
20 or partly severed to give it the necessary elasticity to be sprung over the larger part of the pintle and contracted again into a suitable groove to receive it. The means employed are shown in the accompanying drawings, in
25 which—

Figure 1 shows one form of my invention embodied in a hinge. Fig. 2 is a detail of the clip shown in Fig. 1. Fig. 3 is a modified form of the clip shown in Figs. 1 and 2. Fig. 4 is
30 a modification of the device shown in Fig. 3.

Referring to the drawings, A A denote the leaves of an ordinary butt embodying my invention.

B is a pin headed at one end *b* and slightly
35 beveled at the opposite end, as shown at *b'*, to enable it to be readily forced into the spring-clip, the lower end of the pin shown in Figs. 1 and 2 being grooved, as at *b''*. A recess *c* is formed in the knuckle C and is preferably
40 enlarged at the top *c'* to accommodate a washer *e*. In the recess is located a clip D, comprising a series of split rings *d*, which are held in place by the washer *e*. The inside diameter of these rings is smaller than the diameter of
45 that part of the pin between the grooves or approximately of the same diameter as the bottom of the grooves.

E is a tip attached to the bottom of the hinge to give it a finished appearance.

50 In assembling a hinge made according to my invention the split rings *d* are placed in

the recess *c* and held therein by the washer *e*. The two leaves of the hinge are then put together so that the holes in the knuckles will register, and the pin is inserted and has the
55 lower end forced into the clip, the split rings occupying the grooves and holding the pin with sufficient force to prevent its accidental displacement, but to allow of its being manu-
60 ally removed.

In the modifications shown in Fig. 3 the pin is circumferentially grooved, as at *G*, near the lower end, and the clip *D'* is in the form of a cap split through part of its length, as at *d'*, and having an inturned lip *d''*. The opening
65 in the cap formed by the inturned lip is smaller in diameter than the end of the pin and of approximately the same diameter as the groove in the pin. Splitting the clip through part of its length gives it sufficient
70 elasticity so that it will be expanded when the pin is forced into it and will contract when the lip enters the groove and hold the pin with sufficient force to prevent its accidental displacement.
75

It is evident that the washer *e* (shown in the drawings) may be dispensed with and that one or more split rings may be used to retain the pin in place without departing from the spirit of my invention.
80

In Fig. 4 of the drawings the clip *F* is a modified form of the clip shown in Fig. 3 and has a shoulder *f* formed at one end. The hole *g* through the knuckle *G'* is enlarged at the lower end, forming a shoulder *H*, against
85 which the shoulder on the clip rests. The clip rests on and is held in position by the threaded shank *i* of the knob *I*. In a construction of this kind the spring-clip is inserted in the bottom of the knuckle, the split part of
90 the ring being positioned so as to receive the end of the pin when the hinge is assembled, the interengaging shoulders on the clip and knuckle serving to prevent the removal of the clip when the pin is removed. This modi-
95 fication of my invention shows one of the many forms in which it may be used and which are intended to be embraced herein.

I claim as my invention—

1. The combination in a butt, with the
100 leaves, and a pin circumferentially grooved near one end, of a socket formed in one of the

knuckles, and a spring-clip, comprising a split ring, located in said socket and having an opening of approximately the same diameter as the diameter of the bottom of the groove.

- 5 2. In loose-pin butts, the leaves, and the pin circumferentially grooved near one end, a clip comprising a series of split rings located in one of the knuckles to grip said pin and thereby holding it against accidental displacement, and a stop to prevent the removal of
10 the clip from the knuckle during the operation of removing the pin.

3. In loose-pin butts, the leaves, the pin circumferentially grooved near one end, a clip comprising a series of split rings located in one of the knuckles to grip said pin and thereby holding it against accidental displacement, and a washer located in the socket to retain the clip in position. 15

CHAS. GLOVER.

Witnesses:

H. HERBERT WETHERILL,
EDWARD M. PRATT.