

(No Model.)

G. ESSER.  
SEPARABLE STUD.

No. 429,089.

Patented May 27, 1890.

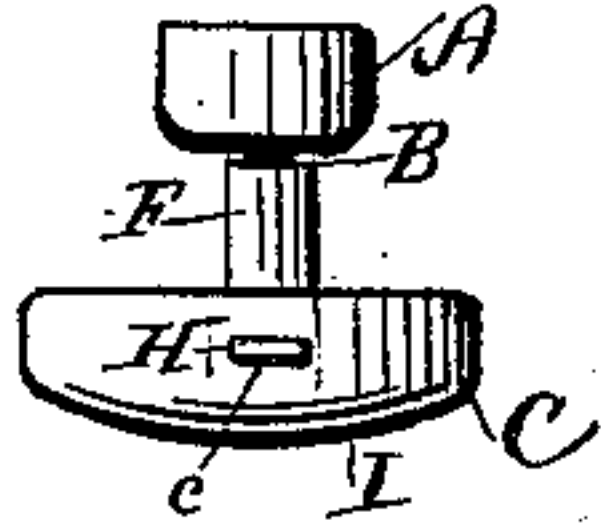


FIG. 1.

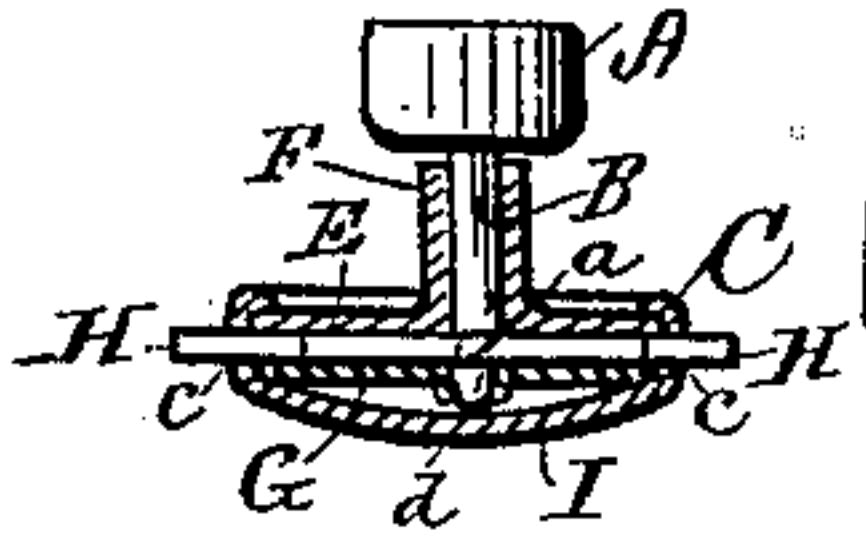


FIG. 2.

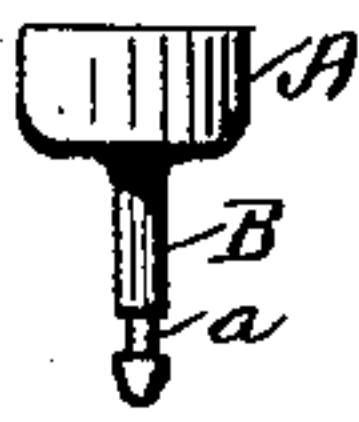


FIG. 3.

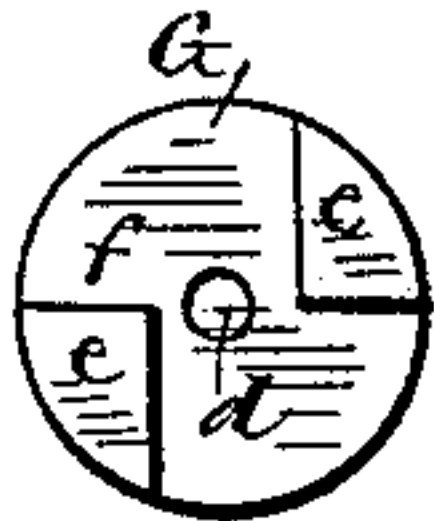


FIG. 4.



FIG. 5.

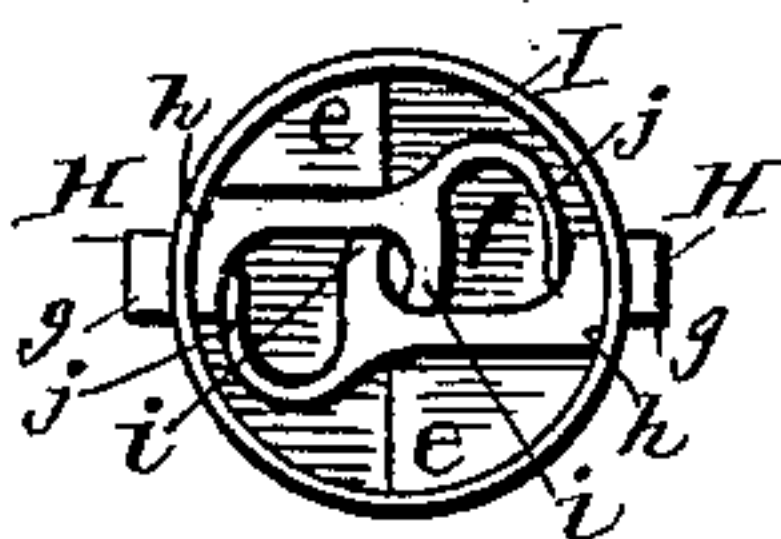


FIG. 6.

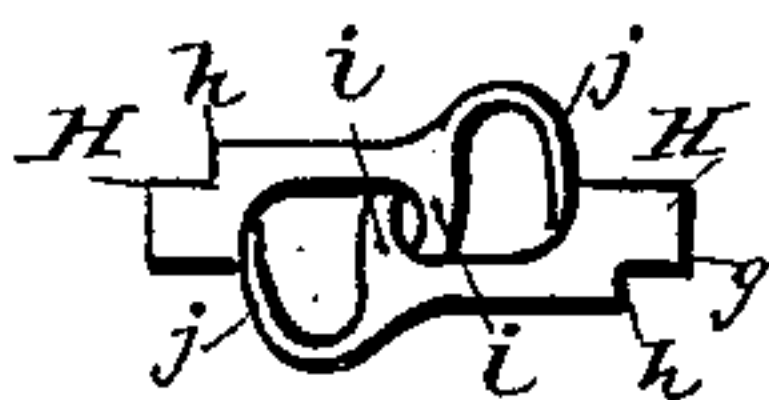


FIG. 7.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

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## SEPARABLE STUD.

SPECIFICATION forming part of Letters Patent No. 429,089, dated May 27, 1890.

Application filed January 31, 1890. Serial No. 338,777. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE ESSER, of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Separable Studs, of which the following is a specification.

The nature of my invention consists in the improved construction and arrangement of the several parts of the stud, as hereinafter fully set forth.

Figure 1 represents a side elevation of the improved separable stud. Fig. 2 represents the shoe in axial section connected to the post of the head of the stud. Fig. 3 represents a side elevation of the head of the stud and the attached wire post. Fig. 4 represents a top view of the pusher-guiding plate of the shoe. Fig. 5 represents an edge view of the same. Fig. 6 represents a top view of the shoe with the covering-plate removed, showing the pushers in position. Fig. 7 represents a plan view of the pushers removed from the shoe.

In the accompanying drawings, A represents the head of the stud, to which is firmly attached the wire post B, the said post being tapered at its end and provided with the annular groove *a*. The shoe C is formed of a cup I, which is provided with opposite elongated perforations *c c* to receive the pushers H H, a covering-plate E, provided with a hollow post F, adapted to receive the wire post B of the head A and the pusher-guiding plate G. The plate G is provided with the central perforation or depressed recess *d* and the opposite struck-up portions *e e*, thus forming a recess *f* at the upper side of the plate G, adapted to receive the pushers H H, the struck-up portions *e e* serving to support the covering-plate E and to allow sufficient space between the covering-plate and the bottom of the recess *f* for the proper operation of the pushers. The pushers H are provided with

a head portion *g*, a limiting-shoulder *h* for the forward movement of the pusher, a catch portion *i*, and a spring portion *j*, the spring *j* of each pusher being arranged to act against the back of the head of the opposite pusher, as shown in Figs. 7 and 8. In putting the parts of the shoe together the pusher-guiding-plate G is first inserted into cup I, and the pushers H H placed in position, as shown in Fig. 7, and then the covering-plate E is placed upon the plate G, so as to rest upon the struck-up portions *e e* and the edge of the cup I turned over the edge of the plate E, as shown in Fig. 4.

When the pushers H H are pressed inward, the catches *i i* will be moved out of the groove *a* in the post B, thus releasing the same to allow the removal of the head of the stud from the shoe, and upon releasing the heads *g* of the pushers from pressure the resilience of the springs *j*, which bear against the inner side of the heads *g*, will serve to carry the pushers outward until the shoulder *h* strikes against the inner side of the rim of the cup I.

I claim as my invention—

In a separable stud, the combination, with the head A and post B, provided with the catch-groove *a*, of the cup I, provided with the opposite perforations *c c* to receive the pushers, the pusher-guiding plate G, provided with the raised portions *e e* and the opening *d*, the pushers H H, provided with the head *g*, the shoulder *h*, the catch *i*, and spring *j*, and arranged with each other so that the spring of one pusher will rest against the opposite pusher, and the covering-plate E, provided with the hollow post F, substantially as described.

GEORGE ESSER.

Witnesses:

SOCRATES SCHOLFIELD,  
JAMES W. WILLIAMS.