

No. 608,123.

Patented July 26, 1898.

S. HUMBLE.

SELF DETACHING HOOK FOR WINDING PURPOSES.

(Application filed Dec. 15, 1897.)

(No Model.)

Fig: 1.

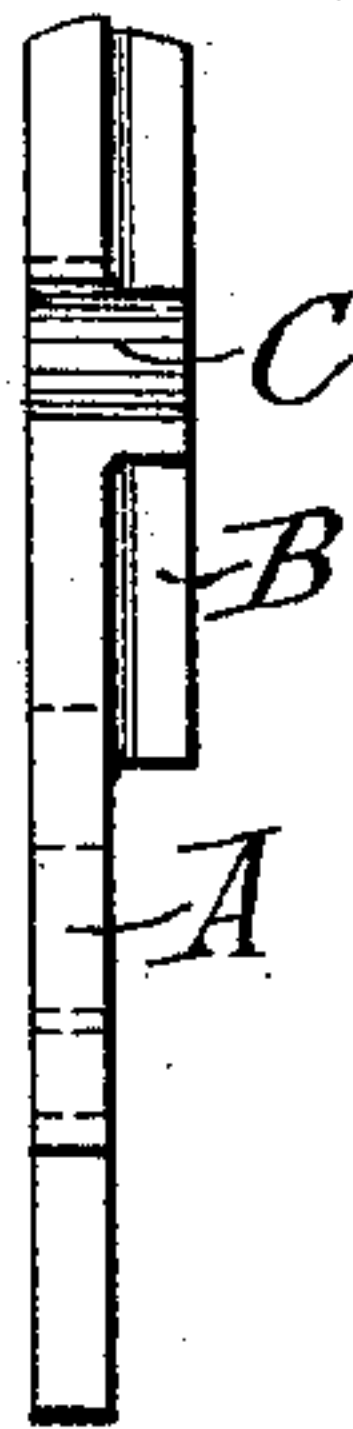


Fig: 2.

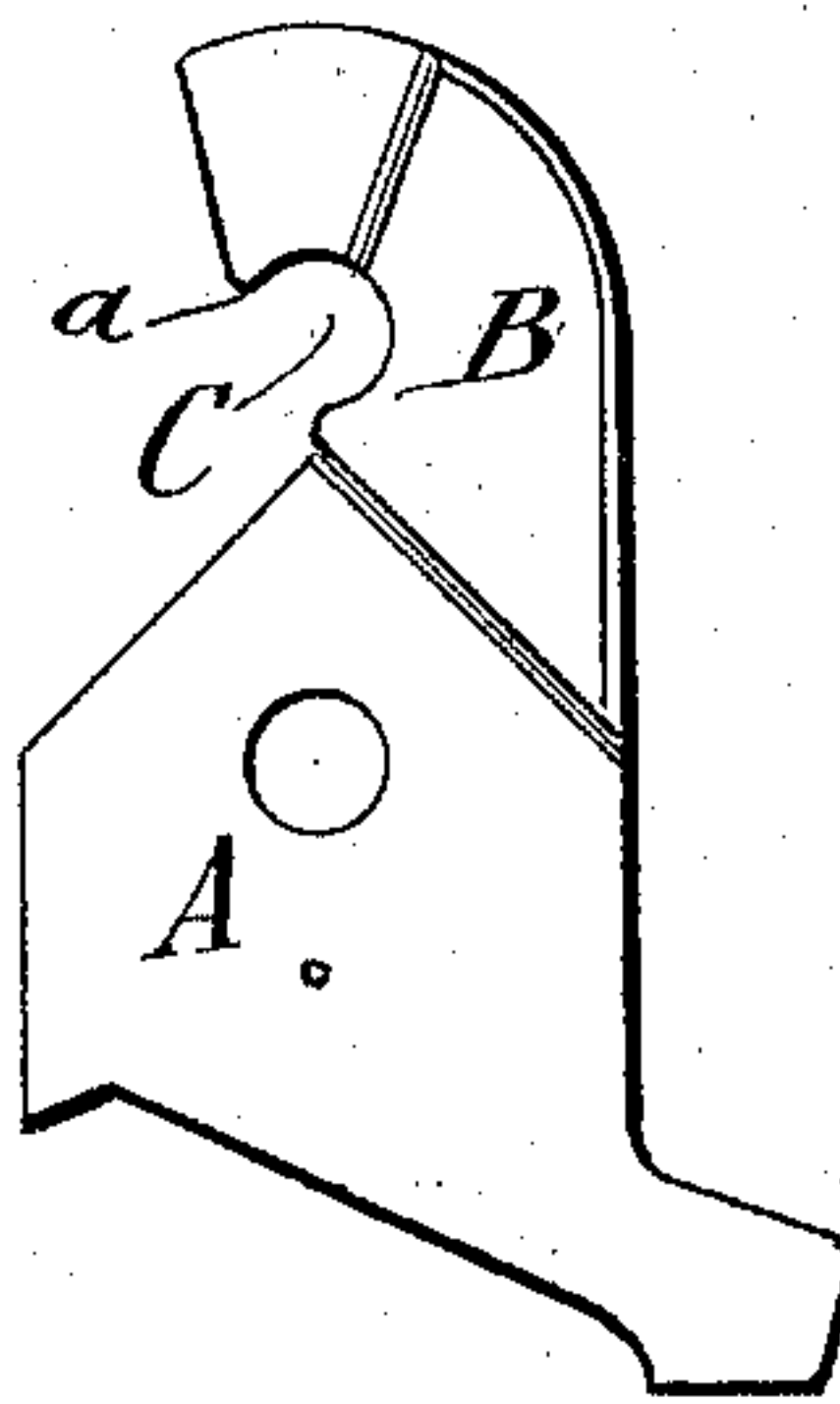


Fig: 3.

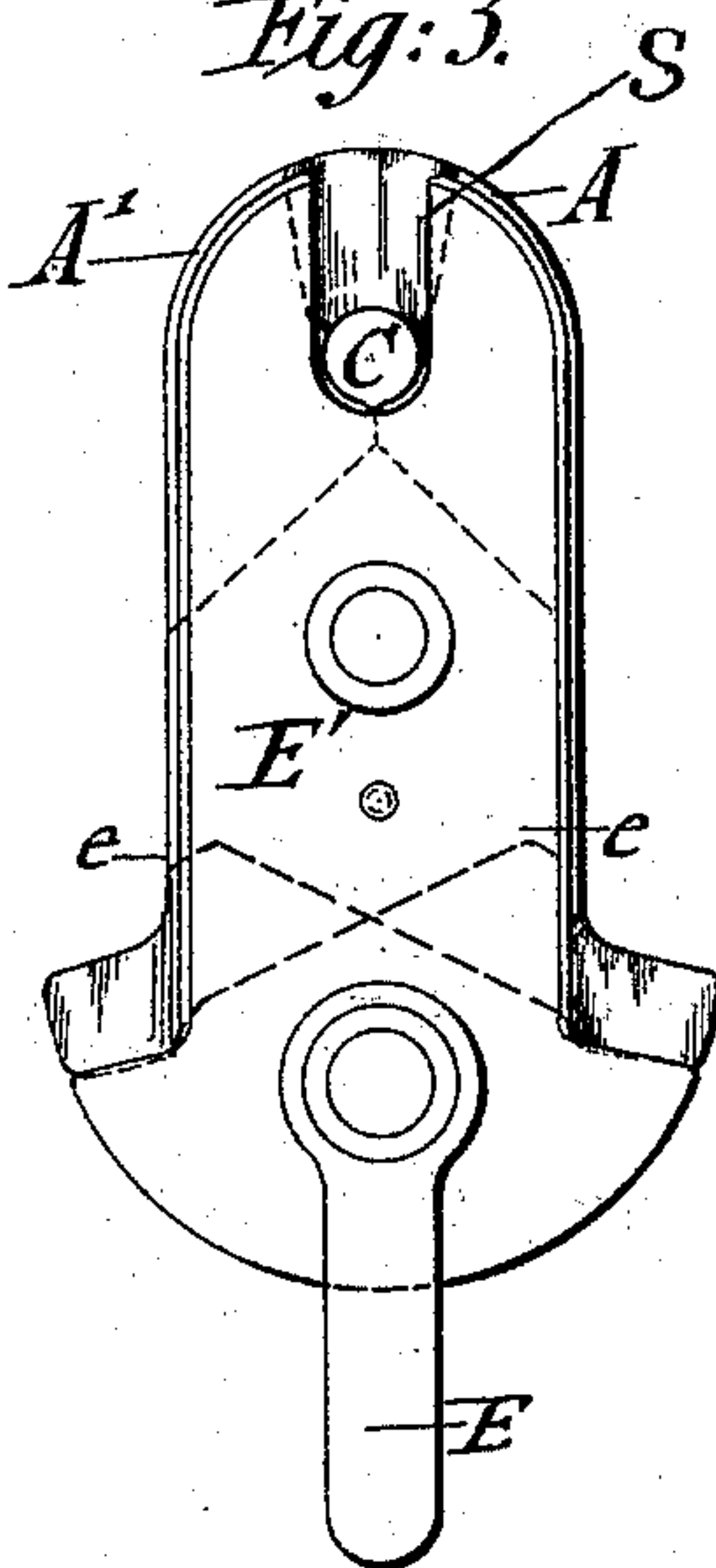


Fig: 3^a.

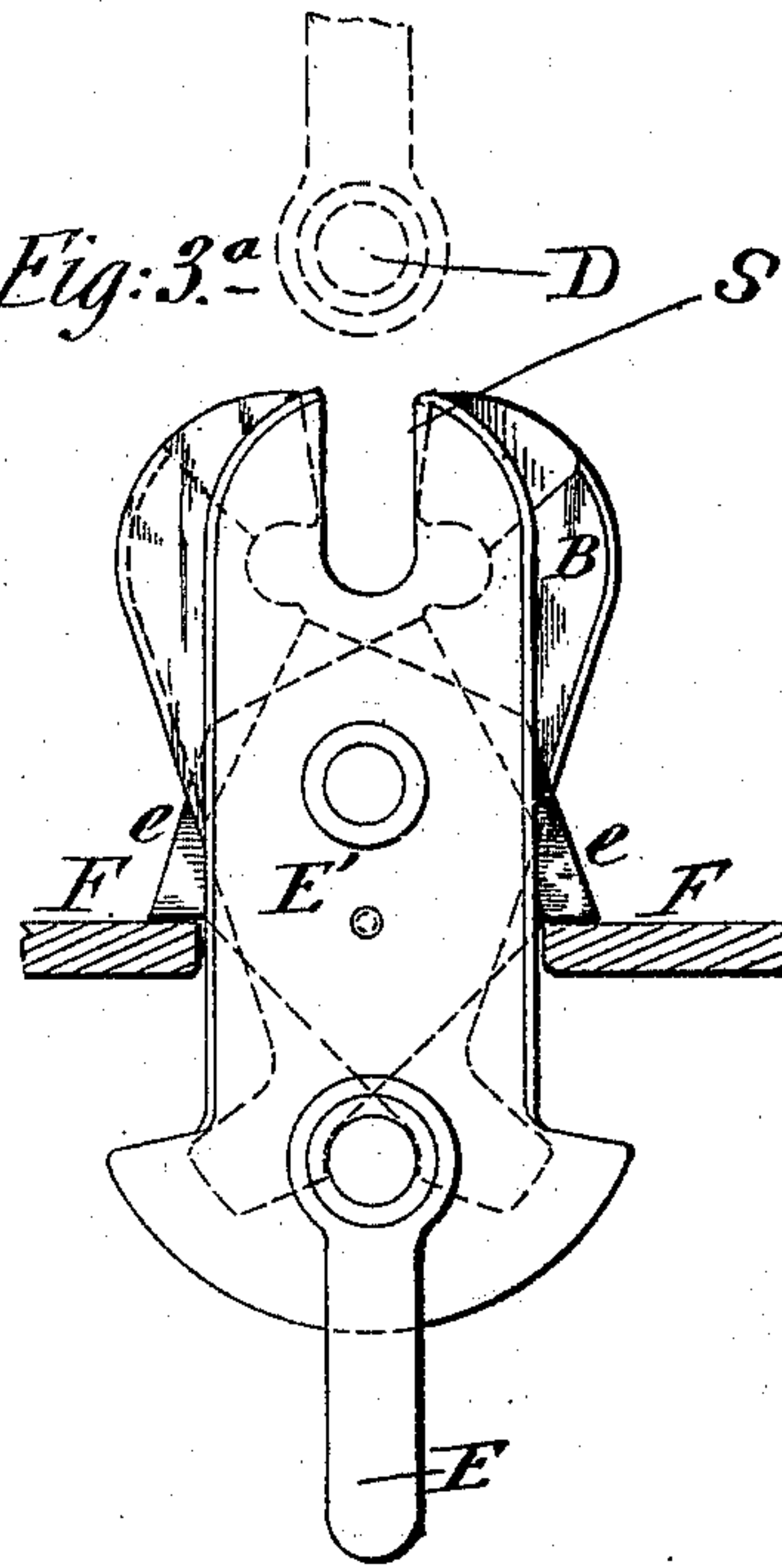
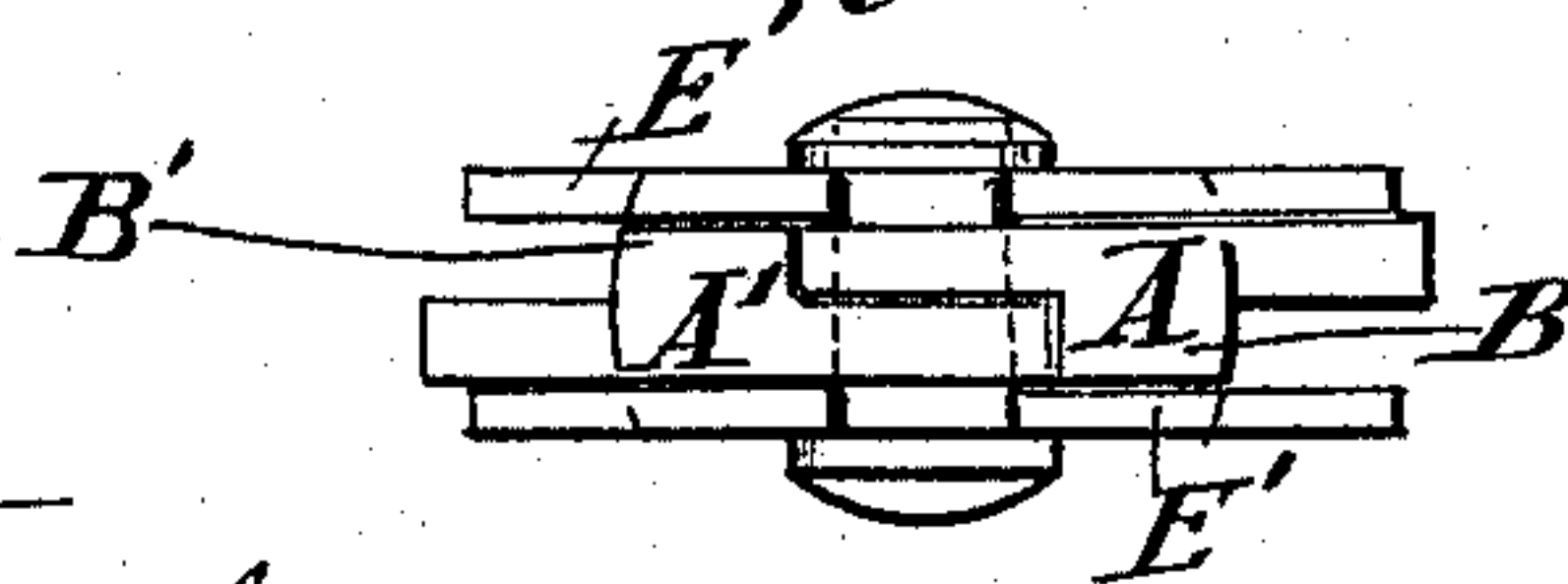


Fig: 4.



WITNESSES:

Carl Humble
Geo. H. Jaekel

INVENTOR

Stephen Humble
BY
George Raegner
ATTORNEYS.

UNITED STATES PATENT OFFICE.

STEPHEN HUMBLE, OF LONDON, ENGLAND.

SELF-DETACHING HOOK FOR WINDING PURPOSES.

SPECIFICATION forming part of Letters Patent No. 608,123, dated July 26, 1898.

Application filed December 15, 1897. Serial No. 661,947. (No model.) Patented in England January 9, 1897, No. 661.

To all whom it may concern:

Be it known that I, STEPHEN HUMBLE, a subject of the Queen of Great Britain, residing at Westminster, London, in the county of Middlesex, England, have invented certain new and useful Improvements in Self-Detaching Hooks for Winding Purposes, (for which Letters Patent were granted to me in England, No. 661, dated January 9, 1897,) of which the following is a specification.

This invention relates to self-detaching hooks, such as are already known, for the attachment of shaft-cages or the like to the winding ropes or chains; and it consists of improvements in the construction and form of such hooks to avoid what has hitherto been a recognized weakness and danger in the same. Such self-detaching hooks are usually of the form of two or more plate-hooks, right and left handed, with the jaws of the hooks passing side by side over the shackle of the winding rope or chain. The said plate-hooks are pivoted between two side plates, forming the body of the hook, and carrying the lower shackle for the attachment of the cage. It has been found that such plate-hooks when formed from a plate of uniform thickness tend to be weak and are liable to fracture through the neck of the jaw of the hook. In my improved construction of such hook the upper part of said hooks is formed at one end only with a cheek making a double thickness, preferably by forging or stamping the said hook with the required cheek from the solid, such increase of metal in the upper or neck parts of the jaws of the hooks affording a useful counterbalance to the lower parts of the said hooks to effectuate their instant operation when struck by the safety-plate, and at the same time the excess of weight at the upper parts of the hooks is not so great as to tend to cause the hooks to fall outward and disengage by the mere slackening of the hauling-rope, which would be a serious disadvantage. At the same time this strengthening of the upper part of hooks at one side only of the necks of the jaws of the hooks is effected without interfering with the continuity of the external plates of the hook, which is of importance, as the plates, when thus maintained in their integrity, form guides entirely

protecting the upper jaws of the hooks as they pass through the orifice of the catch-plate, preventing the hook from jamming the heads of the internal pivoted hooks, and also acting as a perfect guide to the shackle when released.

In the accompanying drawings, Figures 1 and 2 are an end and side elevation of my improved self-detaching hook for winding purposes. Figs. 3 and 3^a are general elevations showing the said hooks made up with the side plates and their mode of action on striking the safety catch-plate. Fig. 4 is a plan of the same.

Similar letters of reference indicate corresponding parts.

A A' are the right and left handed improved hooks of the present invention, each provided with a cheek B, which thickens and is formed, preferably, solid with the body of each hook at one side only of the weakest part of the neck of the jaw C of the said hook. It is important that the upper part of the said jaw C should be brought over beyond the center of the shackle-pin with an engaging beak or nose *a*. This beak or nose on each jaw abuts against the cheek of the opposite jaw when the hooks are closed.

D is the upper shackle of the winding rope or wire, and E is the lower shackle for the attachment of the cage or other weight to be lifted.

E' E' are the external side plates of the hook, which are still retained so as to completely cover and protect the internal hooks and to form continuous guides through the orifice of the safety catch-plate F, and also perfect guide-slots S for the shackle-pin D when released, as shown. The neck portion of each jaw being thickened by a cheek, as specified, causes the same to occupy the full space and be guided between the side plates E' E', so that opposite sides of said neck portion will act as stops against the inner walls of the side plates for preventing the lateral bending or breaking of a jaw.

The opening and disengaging action of the hooks A and A' with the release of the winding-shackle D and the catching of the projecting wings *e e* upon the safety catch-plate F, when the hook has been drawn to the full extent through the said catch-plate, is shown

in Fig. 3; but as the mode of operation of such safety-hooks is already well known I need not further describe the same.

It is to be observed that in order to maintain the outer side plates E E in their integrity, as heretofore, I form the lateral strengthening-cheeks B B upon the right and left handed hooks A A' in such a manner as to utilize the whole of the space between the said side plates E E for the thick necks of the said strengthened hooks, which I cause to lap over one another when closed after the manner of a scarf-joint, as seen in top view in Fig. 4.

Having thus described my invention, what I claim is—

In a safety-hook device, the combination with side plates provided at their lower ends

with means for supporting a load and having their upper ends slotted to receive a shackle-pin, of hooks pivoted to and located between said side plates, the neck of each of the jaws of said hooks being provided at one side only with a lateral cheek adapted to abut against the end of the jaw of the other hook when closed such thickened jaw being confined between and guided by the side plates, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

STEPHEN HUMBLE.

Witnesses:

EDWD. LIONEL ROGERS,
FRANK BAKER.