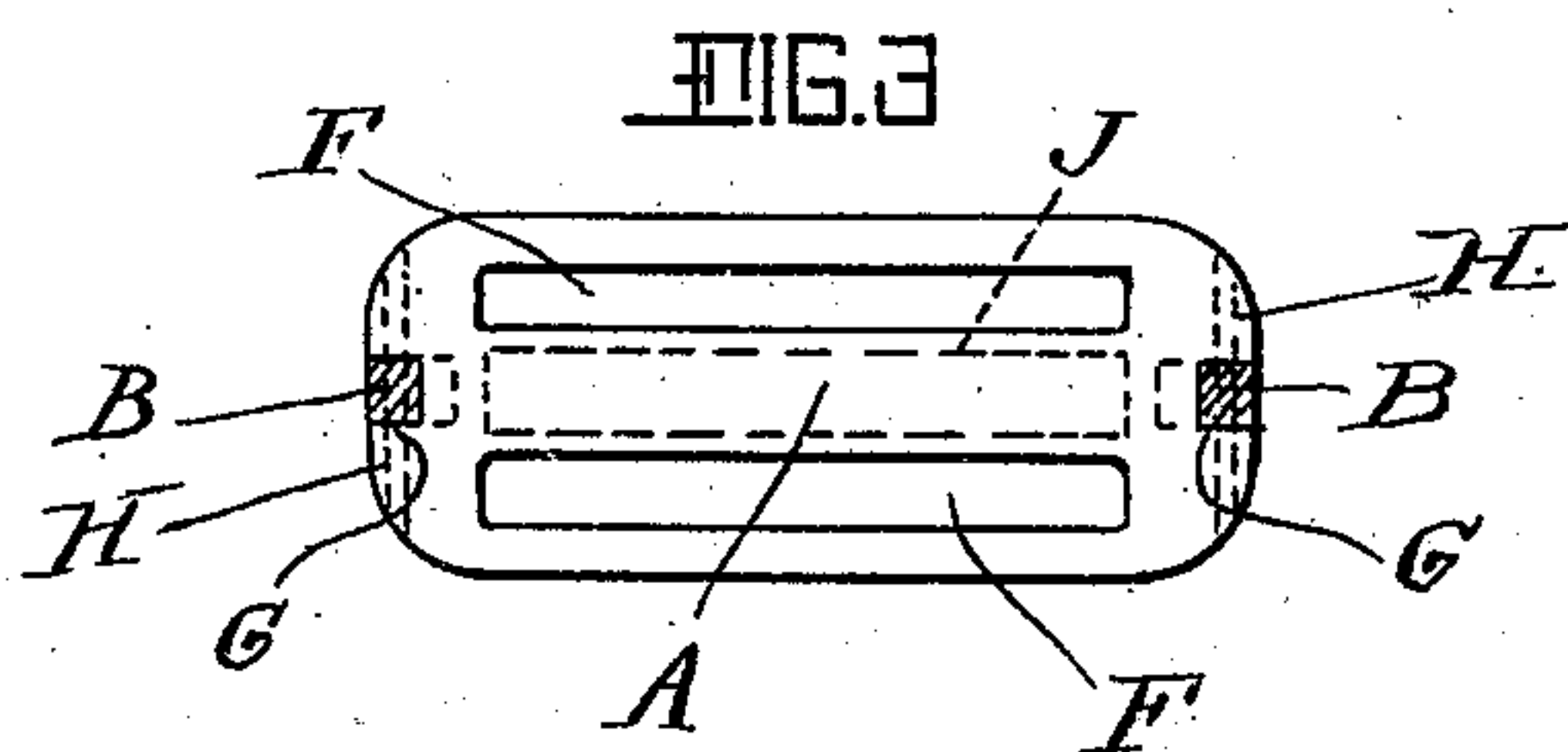
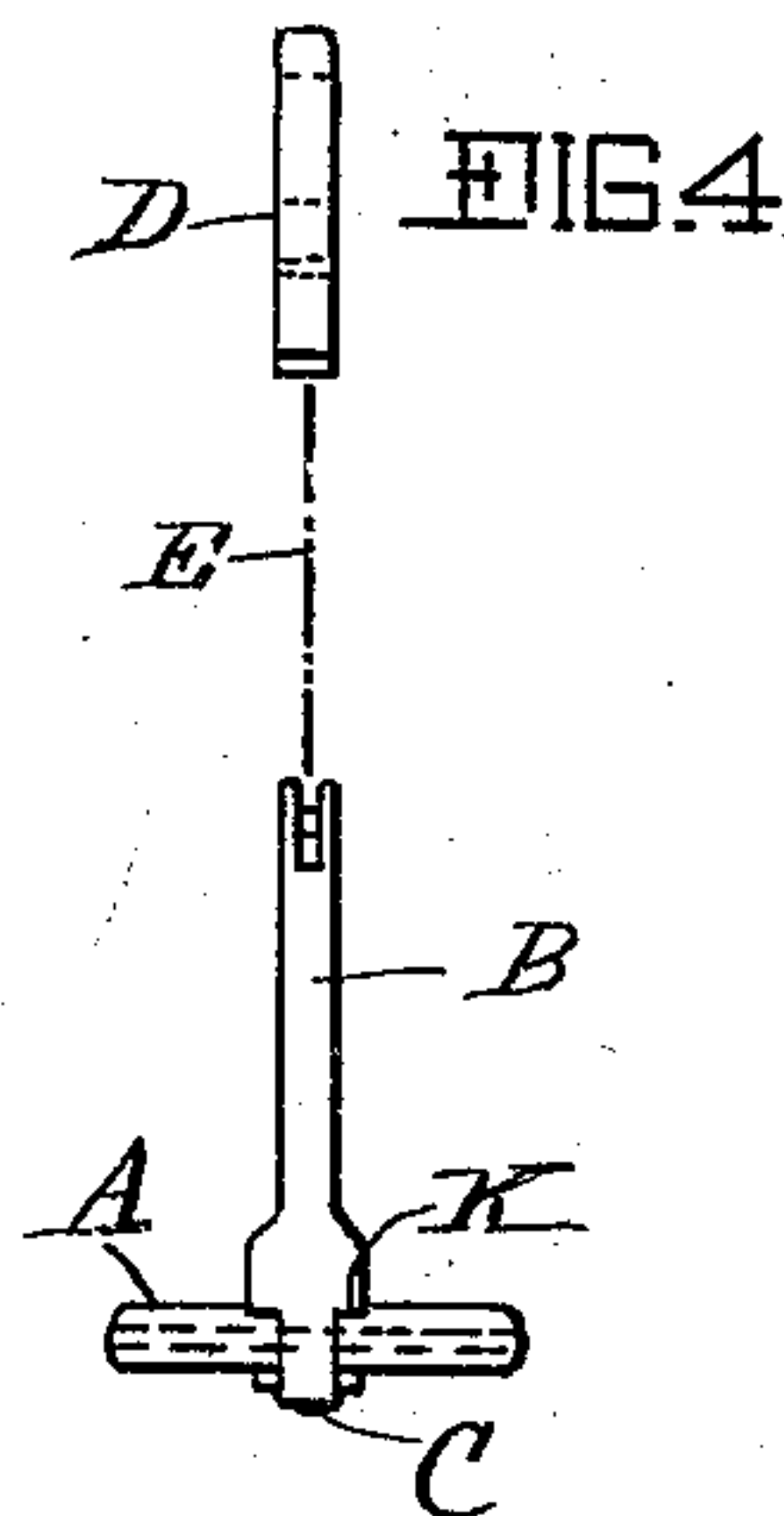
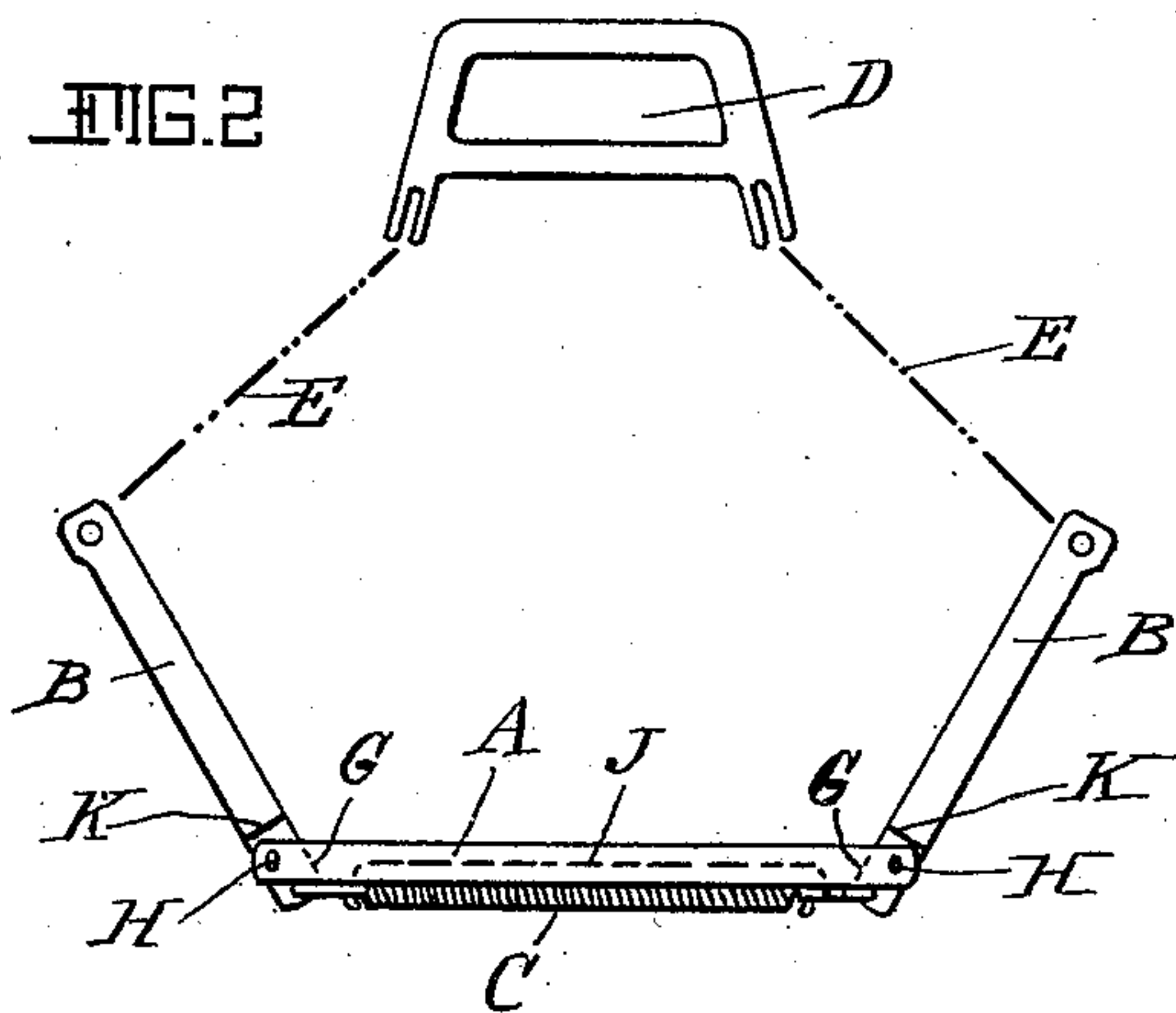
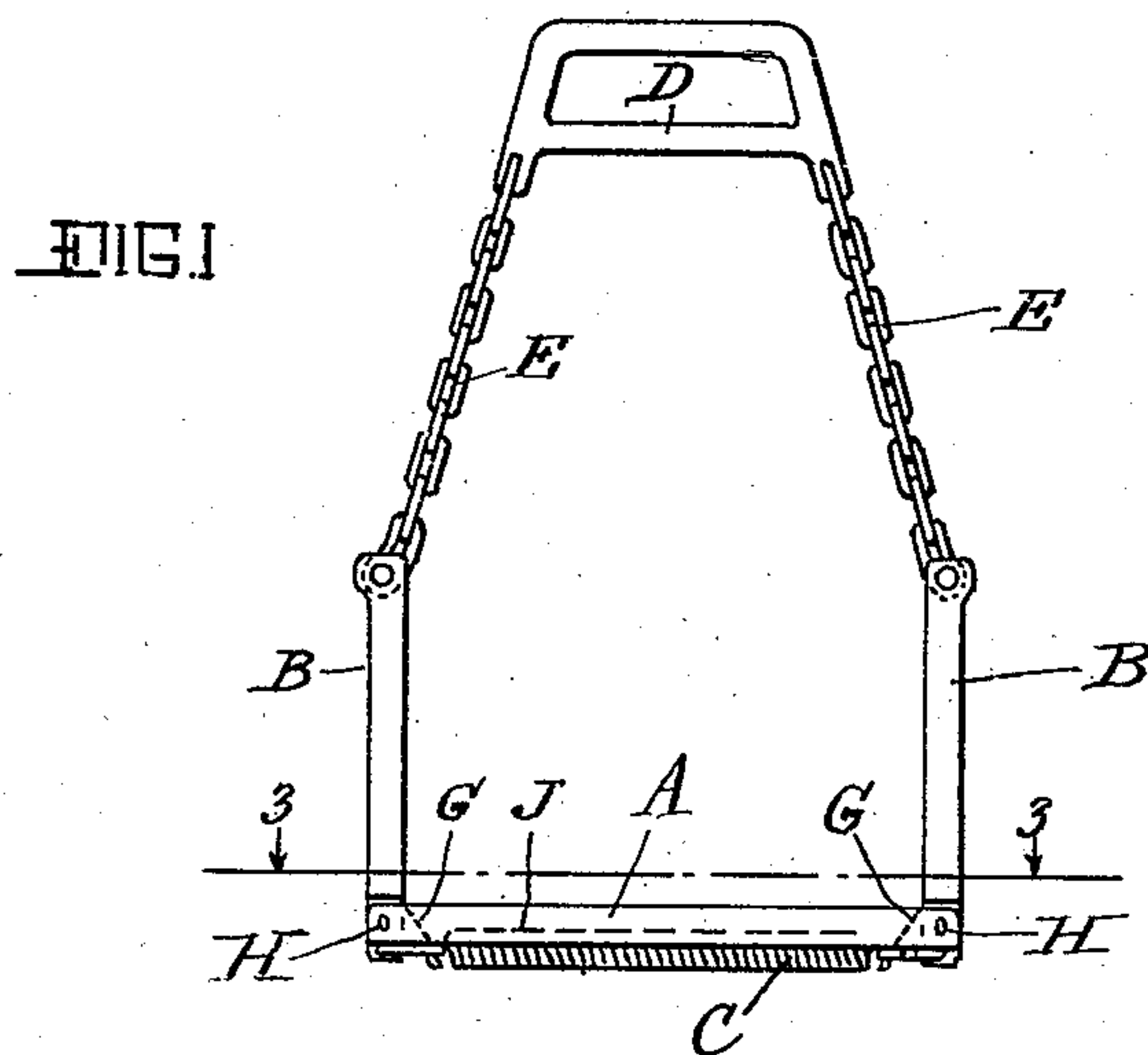


No. 842,702.

PATENTED JAN. 29, 1907.

K. REIM.
SAFETY STIRRUP.
APPLICATION FILED NOV. 6, 1906.



Witnesses
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By his Attorney's
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UNITED STATES PATENT OFFICE.

KONRAD REIM, OF NEW YORK, N. Y.

SAFETY-STIRRUP.

No. 842,702.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed November 6, 1906. Serial No. 342,195.

To all whom it may concern:

Be it known that I, KONRAD REIM, a citizen of the United States, and residing at New York, county of New York, State of New York, have made a certain new and useful Invention in Safety-Stirrups, of which the following is a specification.

This invention relates to safety-stirrups.

The object of the invention is to provide a stirrup of simple construction, economical in manufacture, and which is efficient in operation whereby the release of the foot from the stirrup is facilitated automatically by relieving the pressure of the foot upon the tread portion of the stirrup.

A further object of the invention is to provide an automatically-acting safety-stirrup constructed to release the foot in case the rider should fall from his horse.

Other objects of the invention will appear more fully hereinafter.

The invention consists substantially in the construction, combination, location, and arrangements of parts, all as will be more fully hereinafter set forth, as shown in the accompanying drawings, and finally pointed out in the appended claims.

Referring to the accompanying drawings and to the various views and reference-signs appearing thereon, Figure 1 is a view in front elevation of a stirrup embodying the principles of my invention, the foot-engaging arms being shown in the position occupied thereby when the foot is in the stirrup and resting with pressure upon the tread of the stirrup. Fig. 2 is a view similar to Fig. 1, showing the foot-engaging arms of the stirrup separated or spread apart to release the foot, being the position assumed thereby when the pressure of the foot upon the tread of the stirrup is withdrawn. Fig. 3 is a view in section on the line 3 3, Fig. 1, looking in the direction of the arrows and showing the tread of the stirrup in top plan. Fig. 4 is a view in side elevation of the stirrup shown in Figs. 1 and 2.

The same part is designated by the same reference-sign wherever it occurs throughout the several views.

In case a horseback-rider is thrown from his horse it frequently occurs that the rider's foot remains engaged with the stirrup or clamped in the stirrup, thereby resulting in the rider being dragged along the ground in case the horse is fractious or runs away, resulting in serious, if not fatal, injury. At the same time it is desirable when using stirrups

that the foot of the rider be efficiently engaged and held in the stirrup without danger of accidental detachment therefrom when the stirrup is in use under ordinary conditions.

It is among the special purposes of my present invention to provide a stirrup of simple construction which, while affording an efficient clamp or engagement for the foot when the rider is using the same under ordinary conditions, will in case of accident or of the rider being thrown from his horse, so as to relieve the pressure exerted by the foot upon the tread of the stirrup, automatically operate to release or unclamp the foot from the stirrup, thereby enabling the foot to be readily withdrawn from the stirrup, and hence avoiding the danger of the rider being dragged along by the foot remaining clamped in the stirrup in case the horse should bolt or run away.

In carrying out my invention I provide a tread A, upon which the ball of the foot rests when inserted in the stirrup, the rider exerting a downward pressure upon such tread. This tread may be of any suitable shape, construction, or material, and I do not desire, therefore, to be limited or restricted in respect to these details. In practice, however, I have found it efficient and desirable to employ a tread of rectangular outline, having a flattened upper surface to receive the bearing of the ball of the foot. If desired, longitudinal slots or openings F may be formed through the tread in order to reduce the weight thereof in case the tread is made of metal. This, however, is an unimportant and unessential detail. At each end of the tread is formed a recess or seat G, in each of which is received a clamping-arm B, a pivot-pin H, passing transversely through the ends of the tread A, the seats G, and arms B, serving to pivotally connect the arms to the tread. Suitable yielding means, such as a coil-spring C, connects together the lower ends of arms B immediately below the tread A, the tension of such spring being normally exerted upon the arms to rock or swing the upper ends of the same in a direction away from each other and into the position shown in Fig. 2. In order to economize space and to prevent the spring C from catching in the clothing of the rider, said seat may be partially seated in a seat J, formed in the under side of the tread A and extending longitudinally thereof and which forms a hous-

ing for the spring. The extent of rocking movement of the arms B in either direction may be limited in any suitable or convenient manner, if desired—as, for instance, by shoulders K, formed on the arms B and adapted to engage the upper surface of the tread. If desired, the outwardly-rocking movement of the arms may be limited by the lower ends of the arms engaging the inner walls of the slots or seats G.

The upper and longer ends of arms B constitute the engaging arms of the stirrup for engaging and holding the foot of the rider in the normal use of the stirrup. To enable the pressure of the foot upon the tread A to rock the arms B into position to engage the foot and against the tension of spring C in the normal operation of the stirrup when in use and at the same time to afford a means of attachment of the stirrup to the stirrup-strap of the saddle, I connect the upper free ends of the arms B through suitable flexible devices—as, for instance, chains E—with a block or lug D, to which the stirrup-strap is designed to be secured and through which the stirrup is supported and suspended from the strap.

In the use of a stirrup embodying the construction above set forth the foot is inserted in the stirrup between the upper ends of the arms B and with the ball of the foot resting upon the tread A. By imposing the pressure of the foot upon the tread A and maintaining such pressure the upper ends of the arms B are rocked or swung into the position shown in Fig. 1 against the tension of the spring C and into position to engage and retain the foot in the stirrup. This is the position and operation of the parts in the normal use of the stirrup under normal riding conditions. In order that the rider may release his foot from the stirrup readily, easily, and automatically, all that is necessary to be done is to release the pressure of the foot from the tread A, the spring C instantly acting to separate or spread apart the arms B,

thereby enabling the foot to be released and disengaged from the stirrup. In case the rider is thrown from his horse the pressure upon the tread A is relieved thereby, and in the manner set forth relieving and disengaging the foot from the stirrup and enabling the foot to be withdrawn from the stirrup.

It is obvious that various changes in the details of construction and arrangement might readily suggest themselves to persons skilled in the art and still fall within the spirit and scope of my invention.

Having now set forth the object and nature of my invention and a construction embodying the principles thereof, what I claim as new and useful and of my own invention, and desire to secure by Letters Patent, is—

1. In an automatic safety-stirrup, a tread, arms pivotally connected to said tread, a spring connecting said arms and normally tending to rock the same in a direction away from each other, and means for connecting said arms to the stirrup-strap.

2. In an automatic safety-stirrup, a tread, an arm pivotally connected thereto at each end thereof, a spring connecting the ends of the arms together below the tread and stirrup-strap connections with the ends of the arms above the tread.

3. In an automatic safety-stirrup, a tread having seats formed in the ends thereof, arms pivotally connected to the said tread in said seats, a spring connecting together the ends of said arms below the tread, a strap lug or block and flexible connections between said lug or block to the free ends of the arms above the tread.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 1st day of November, A. D. 1906.

KONRAD REIM.

Witnesses:

M. MAERKLE,
S. E. DARBY.