

(No Model.)

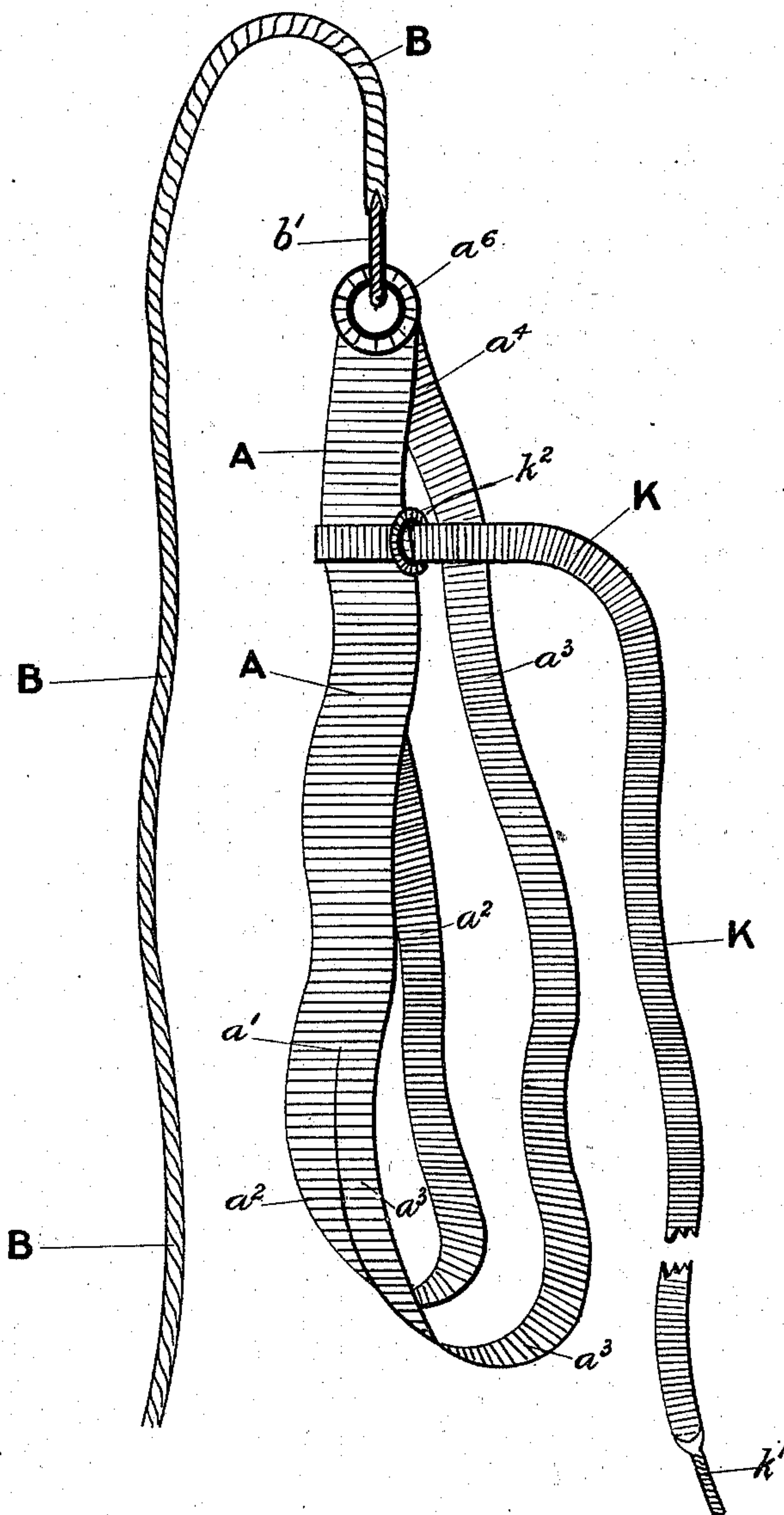
2 Sheets—Sheet 1.

J. F. PERCIVAL & A. E. ASTLEY.  
FIRE ESCAPE.

No. 559,204.

Patented Apr. 28, 1896.

FIG. 1.



Witnesses,  
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Attorney

(No Model.)

2 Sheets—Sheet 2.

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FIG. 2.

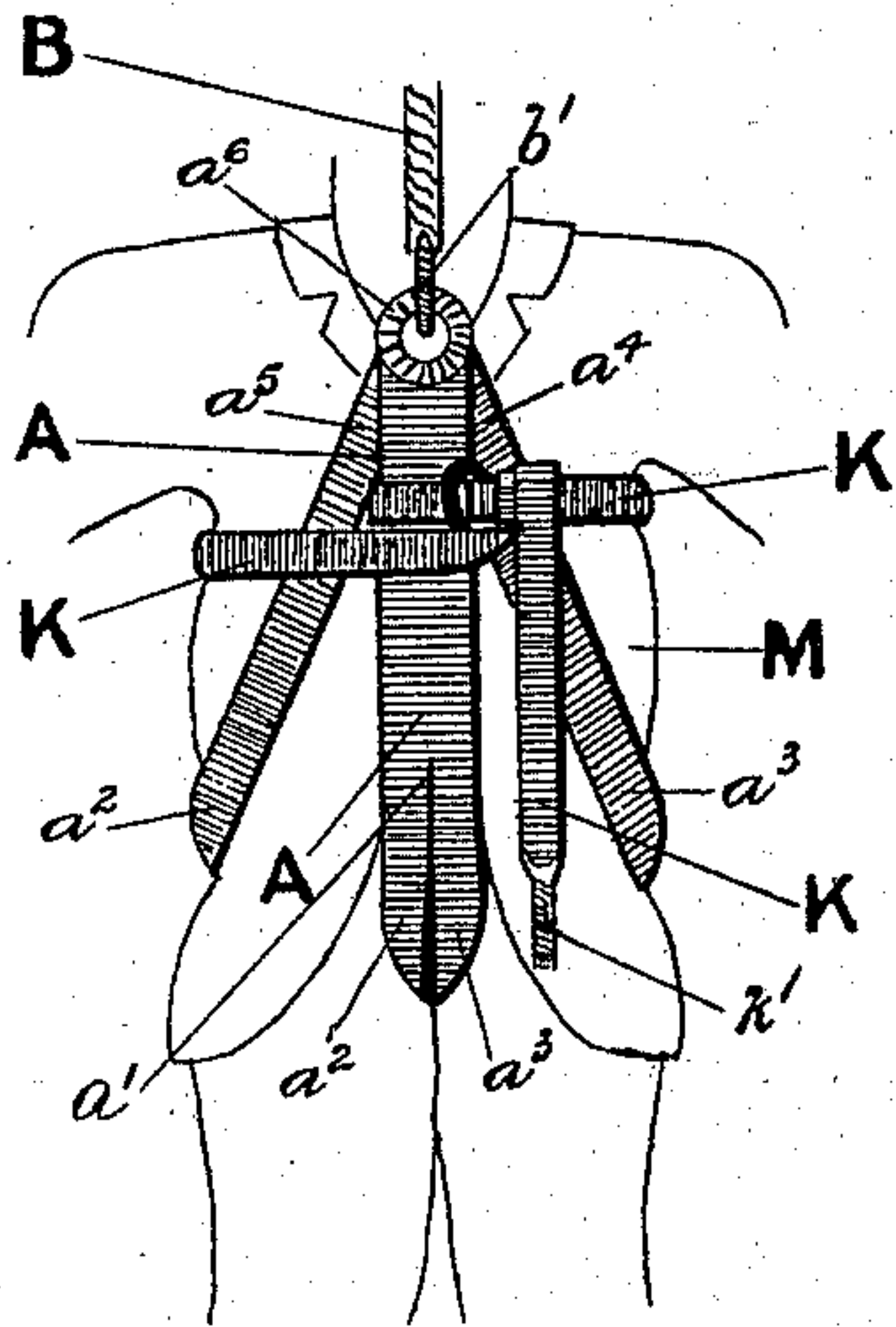


FIG. 3.

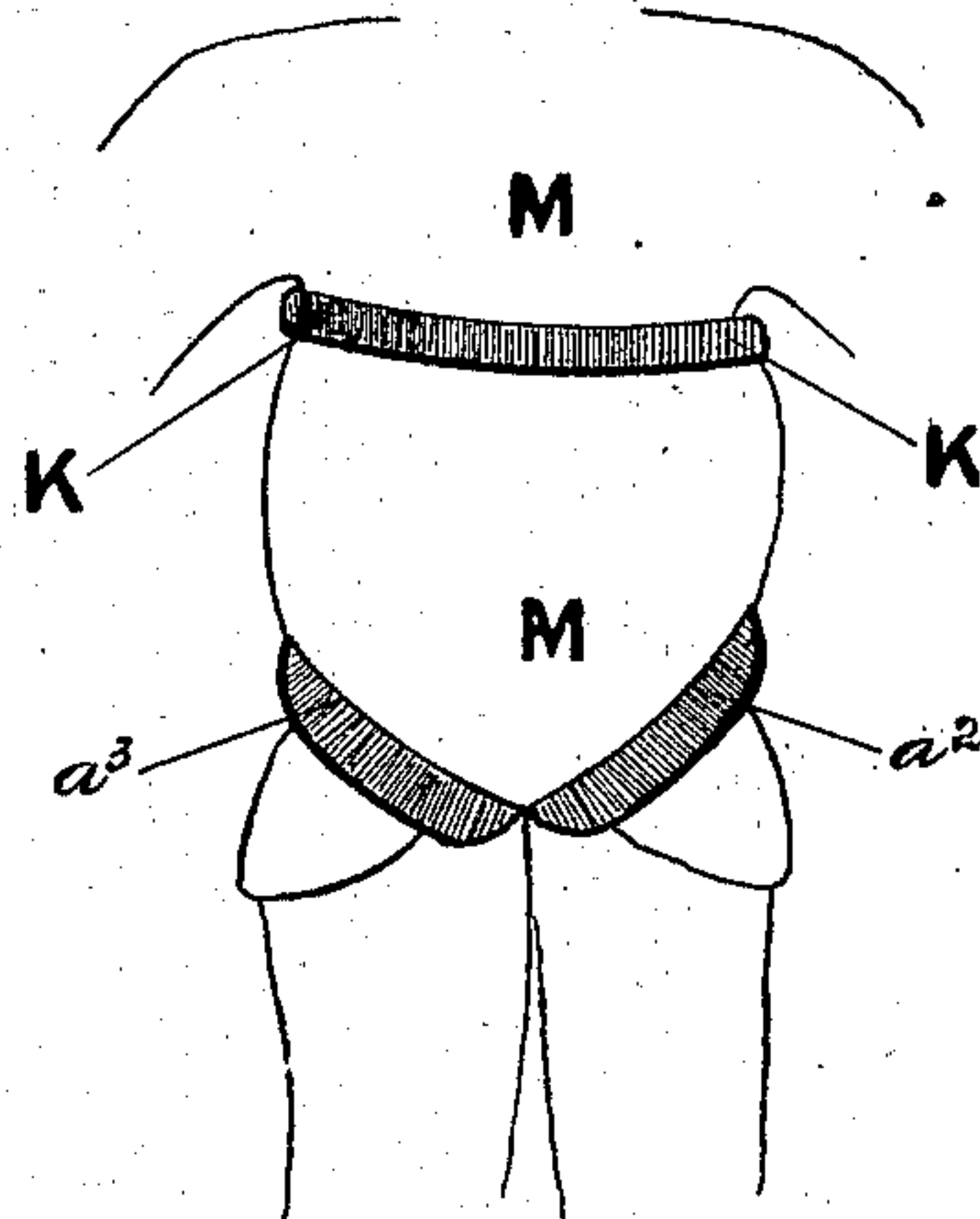
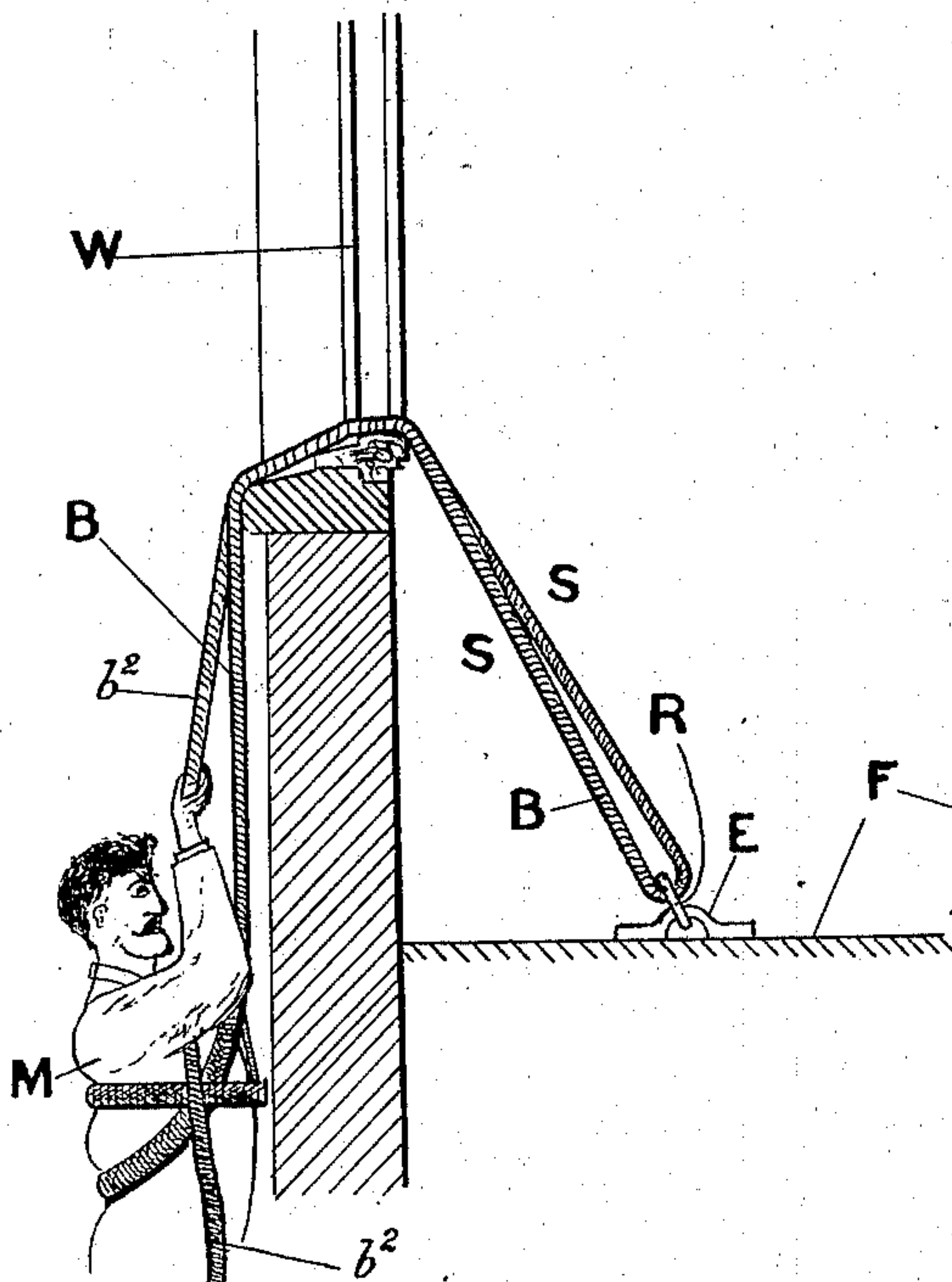
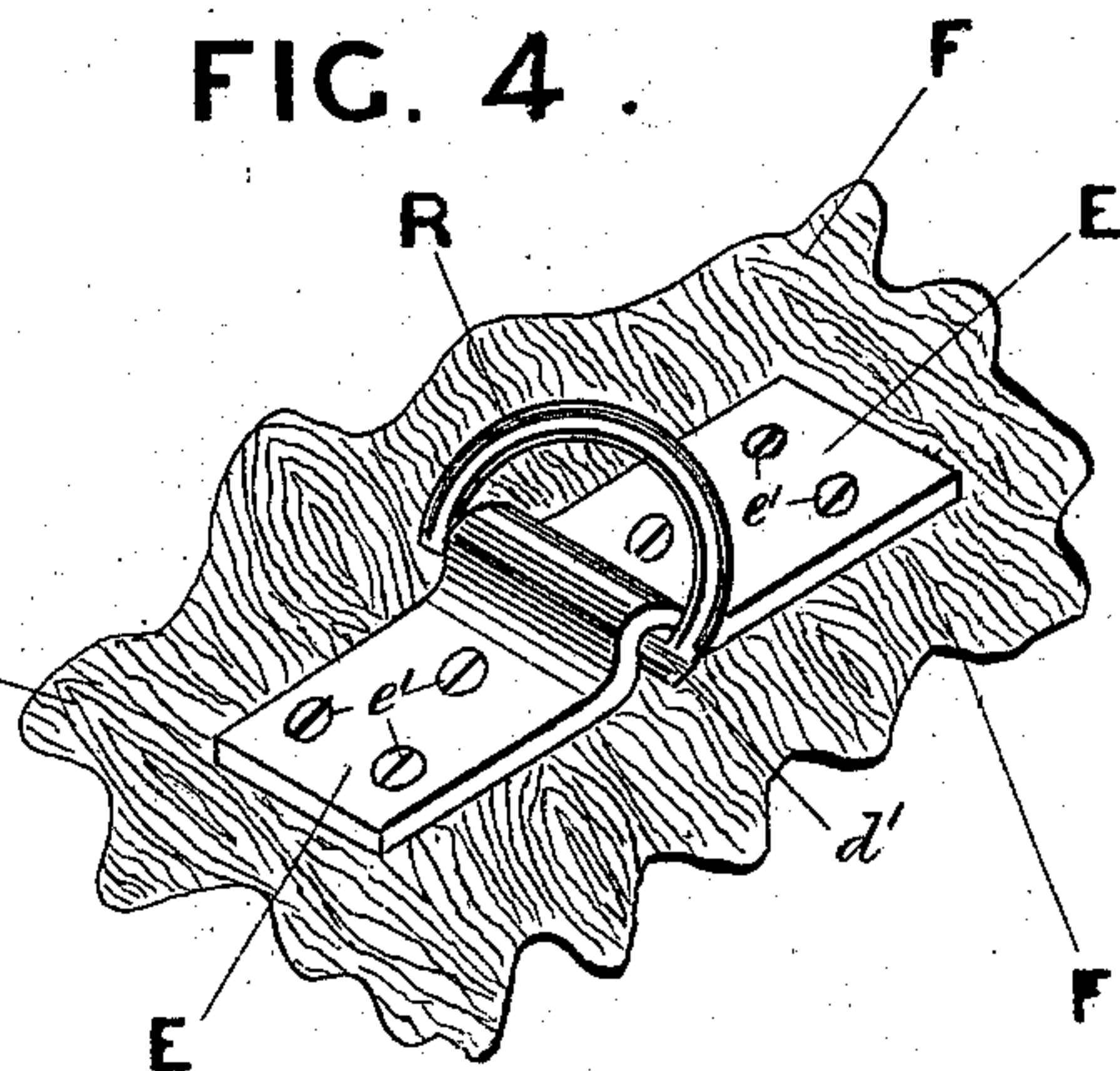


FIG. 5.



Witnesses  
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FIG. 4.



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# UNITED STATES PATENT OFFICE.

JOHN FRANCIS PERCIVAL AND ARTHUR EDWARD ASTLEY, OF COVENTRY,  
ENGLAND.

## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 559,204, dated April 28, 1896.

Application filed November 30, 1895. Serial No. 570,586. (No model.) Patented in England November 20, 1895, No. 22,106.

*To all whom it may concern:*

Be it known that we, JOHN FRANCIS PERCIVAL, woolen draper, of Smithfield Street, Coventry, and ARTHUR EDWARD ASTLEY, manufacturer, of Broadgate, Coventry, in the county of Warwick, England, subjects of the Queen of Great Britain, have invented a certain new and useful Improved Sling and its Attachments and Parts Forming a Fire-Escape, of which the following is a specification, the same having been patented in England by Letters Patent, No. 22,106, dated November 20, 1895.

Our invention relates to fire-escapes of the sling kind; and it consists in the construction and combination of parts hereinafter particularly set forth and claimed.

The sling embodying the said invention is easily folded into a small space and is applicable for the use of travelers to carry in their luggage or for the upper rooms of private houses, hotels, and public and other buildings and by which any number of persons may be lowered one after the other, or, in some cases, two at a time, with equal facilities for the last person to be lowered either with or without outside assistance.

In order that our invention may be clearly understood and more easily carried into practical effect, we have appended hereunto two sheets of drawings, upon which our sling is shown, both separately, and also attached to a person ready for lowering and from which others will be able to adapt the invention to the various conditions met with in practice. It will also be clearly understood that though we have shown the sling and belt made flat from hemp and the junctions well woven or bound thereto the flat portions may be substituted by ropes or other sections, and that suitable material other than hemp may be used.

Figure 1 is a general view of the sling A with the belt K attached thereto and the rope B, all in their position ready to receive a person to be lowered. Fig. 2 is the front view of the sling and belt applied to the body M of a person ready to be lowered. Fig. 3 is the back view of M, showing the sling A and belt K as it would generally be. Fig. 4 shows the attachment E secured to the floor F. Fig. 5

shows a man M in the act of lowering himself from the window W from the upper room S.

Our sling consists of the main front band A, which we prefer to weave flat, and it divides at  $a'$  into the two portions  $a^2$  and  $a^3$ , which pass back upward to  $a^4$  and  $a^5$ , where they are both securely woven or united together to A at the ring  $a^6$ , to which also the rope B is secured by the ring or loop  $b'$ , also woven with the rope in its position, or it may be detachable.

To apply the sling, the man M places his right leg over  $a^2$  and his left leg over  $a^3$ , so that the front band rises vertically, as seen at Fig. 2. The belt K is attached to A by passing the end  $k'$  through the ring  $k^2$  so as to embrace A, which is of course generally done before the man gets into the sling. Indeed the belt should always be so attached ready for use. The belt is then passed around the body and the end tucked around, tied, or secured in the front, which completes the attachment, when M is ready to be lowered. The attachment E with its D-ring R is firmly secured by screws  $e'$  to the floor at the side (by preference) of the window and is always ready for use, as the D-ring turns down nearly flat. The rope B is passed through the ring, when any person may be conveniently lowered by holding the inside end. The last person to escape would lower himself as illustrated at Fig. 5. In doing this he passes the rope through the ring R, or, if he prefers it, around the leg of a bedstead, and then throws the loose rope  $b^2$  out, which he holds with his hands after getting through the window and lowers himself as there illustrated.

It will be at once seen that a big man or a child may be put into the sling, as the belt K may be lowered to embrace the child, so that it would be held steady and securely.

It will also be seen that a couple of children may be bound in the sling at once, one sitting on the  $a^2$  portion and the other on the  $a^3$  portion, when the belt is lowered and bound around both.

The split sling A may be used without the belt K by simply tying a cloth or string around the body or with greater risk without any other security than itself.

What we claim then is—

The new or improved sling and its attachments and parts forming the fire-escape consisting of the part A with its supplemental parts  $a^2$  and  $a^3$  in combination with the belt  
5 K and the ring R substantially as and for the purpose herein set forth and shown upon the drawings.

In testimony that we claim the foregoing as

our own we affix our names in the presence of two witnesses.

JOHN FRANCIS PERCIVAL.  
ARTHUR EDWARD ASTLEY.

Witnesses:

WILLIAM DOCKET,  
ARTHUR P. RANDALL.