

(No Model.)

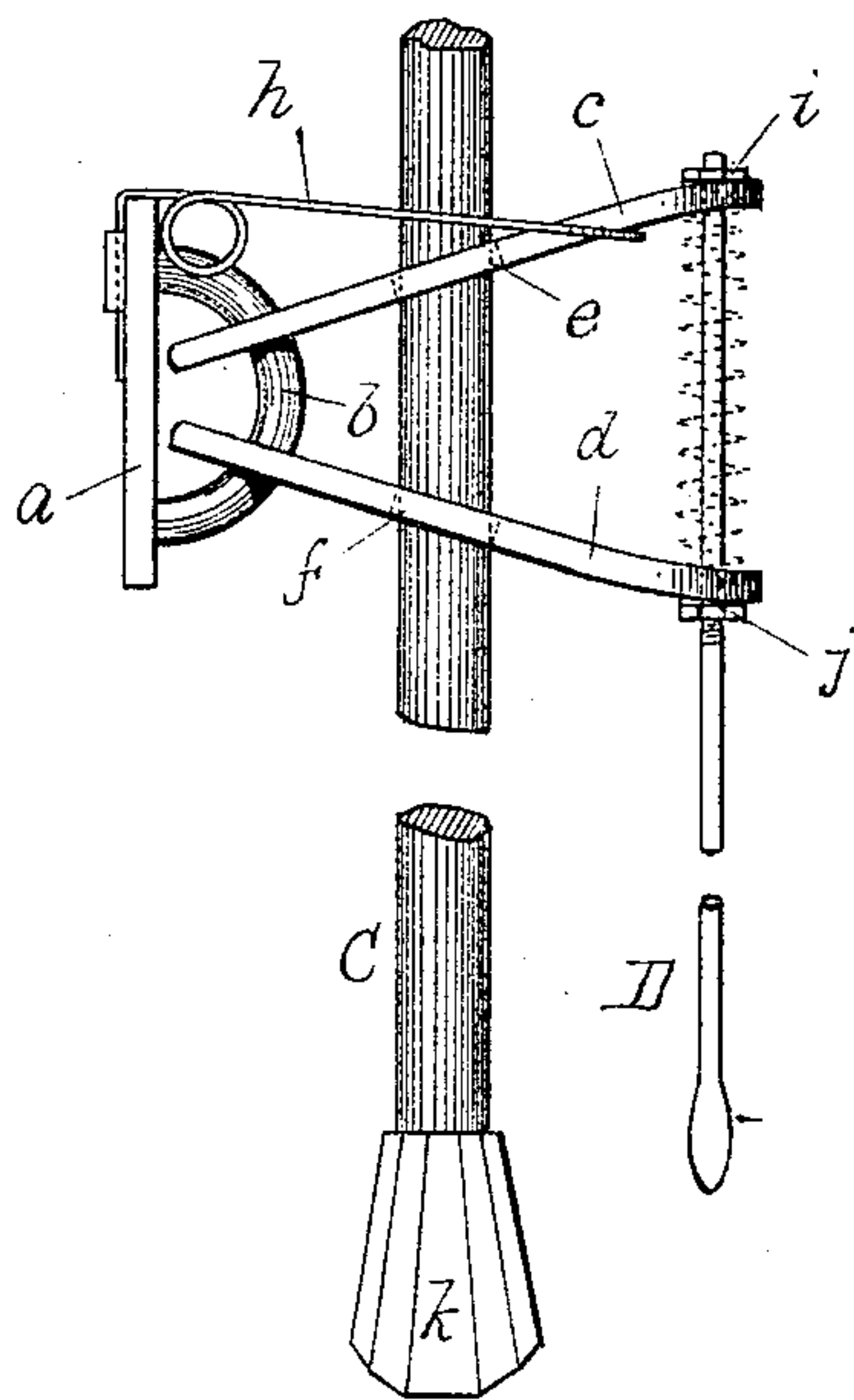
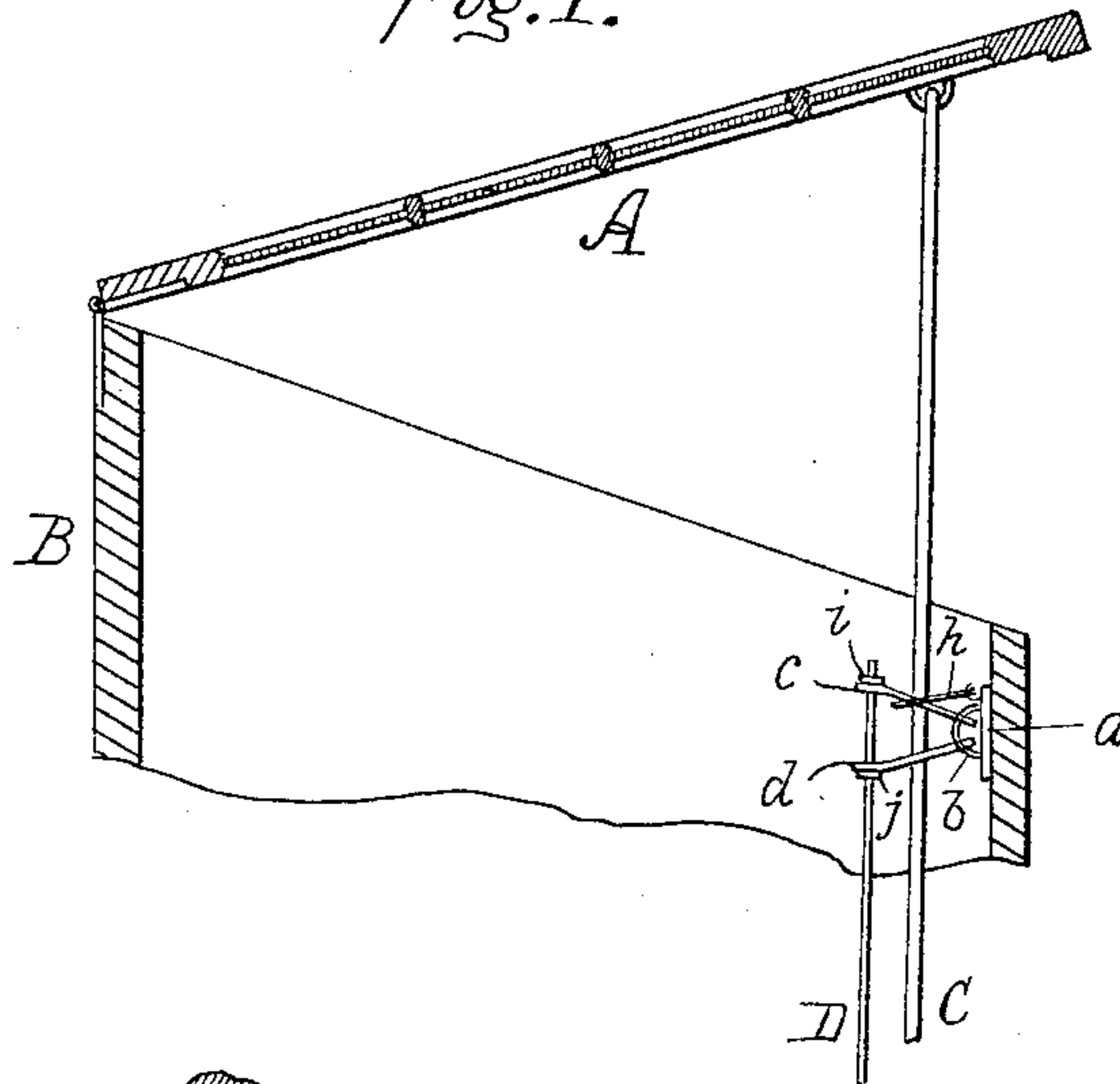
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TRANSOM LIFTER.

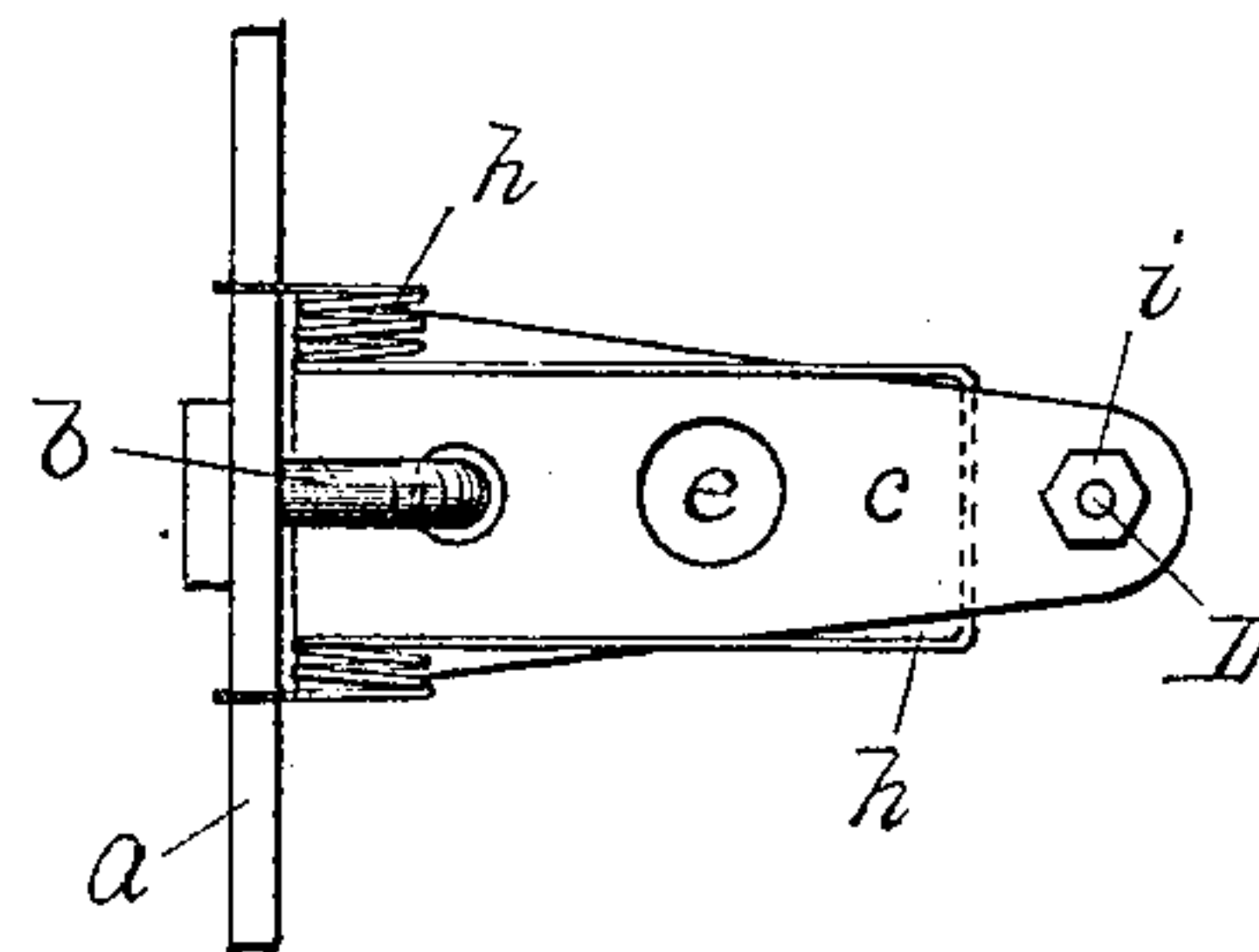
No. 389,302.

Patented Sept. 11, 1888.

*Fig. 1.*



*Fig. 2.*



*Fig. 3.*

Witnesses.

Francis C. Stanwood.  
E. K. Boynton.

Inventor.

Richard Hittinger.  
by H. E. Lodge, Atty.

# UNITED STATES PATENT OFFICE.

RICHARD HITTINGER, OF BELMONT, MASSACHUSETTS.

## TRANSOM-LIFTER.

SPECIFICATION forming part of Letters Patent No. 389,302, dated September 11, 1888.

Application filed June 2, 1888. Serial No. 275,859. (No model.)

*To all whom it may concern:*

Be it known that I, RICHARD HITTINGER, a citizen of the United States, residing at Belmont, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Devices for Opening and Closing Skylights; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The drawings represent, in Figure 1, a vertical section through a skylight, showing the application of a device embodying my invention. Fig. 2 is an enlarged side elevation of the same device. Fig. 3 is a plan of the device with the actuating-rod of the skylight removed.

In said drawings, A represents a swinging skylight, B the frame or casing thereof, and C the actuating-rod by which it is operated and held either open or closed by the device hereinafter more fully described. Said device consists of a plate, *a*, screwed or otherwise bolted to the frame B, and further provided with a closed eye or loop, *b*, preferably semi-circular, upon which are loosely hung or pivoted two similarly-shaped clamping-bars, *c d*, respectively upper and lower in the present instance, where the operating-rod C is vertically disposed. The free end of each clamping-bar is pierced with a hole, designated, respectively, *e* for the upper and *f* for the lower. Said holes are in alignment and their diameters of such dimensions as to be slightly larger than the diameter of the rod C, which is adapted to slide therethrough in either direction in the act of opening or closing the skylight. This movement of the rod can only be effected when the clamp-bars are directly across the longitudinal axis of the retaining-rod C. Thus it is manifest that when the clamp-bars are obliquely disposed the diameter of the holes *e f* is foreshortened or actually reduced in diameter, and the sharp edges or contours of said holes engage the periphery of the rod, while the latter is stopped from moving either up or down. The bar *c* prevents upward motion to counteract the lifting effect

produced by a strong wind beneath the skylight, while the bar *d*, with its hole *f*, prevents the skylight from dropping, induced by gravity. To hold said bars apart and obliquely disposed with respect to the longitudinal axis of the rod, for purposes hereinbefore explained, I have shown a spring, as indicated by the dotted lines in Fig. 2, or, in lieu thereof, simply support the upper clamp-bar, *c*, by the spring *h*, the lower bar falling naturally into its proper active position to prevent the rod C from dropping. To actuate said clamp-bars *c d* in order to release the rod, and thereby open or close the skylight, I have secured at the extremities of the clamp-bars an actuating hand-rod, D, and furnished the latter with two adjustable nuts, *i j*, placed exteriorly of and adapted to engage with said bars *c d*, but sufficiently far apart to allow the latter to grip and hold the rod C. By this arrangement it is seen that the lower clamp-bar, *d*, when obliquely positioned across the rod C, prevents the latter from dropping, and the weight of the skylight simply tends to increase the obliquity and strengthen the grip. Hence to permit the skylight to be lowered or closed, the actuating hand-rod D is grasped by one hand and pushed up, the nut *j* contacts with the end of the clamp-bar, and the latter is swung upwardly, releasing the rod C. The latter and the skylight are now free to move, being guided in their descent by the other hand of the individual who retains the lower end, *k*, of the rod C. In this act the upper clamp-bar does not oppose the downward movement, since it swings a trifle and then stands very nearly at right angles to the rod. Reverse movement or opening of the skylight and upward travel of the rod C are produced by a downward pull of the actuating hand-rod D. By aid of the nut *i* the clamp-bar *c* is swung downwardly about its pivot, the loop *b* against its spring *h*, when the rod is released and an upward push of the retaining-rod C is permitted, the lower clamp-bar moving upward and presenting no obstacle to the travel of said rod.

The actuating-rod D is employed only when the clamp-bars are out of reach of the individual, since the free ends of both bars may then be pressed toward each other when in a position to be grasped by the hand. The spring shown in dotted lines in Fig. 2 is preferably



used when the actuating-rod C is horizontally disposed, and then serves to maintain both clamp-bars obliquely across the longitudinal axis of the actuating-rod C.

5 What I desire to claim is—

In combination with a skylight-sash and its supporting-rod, a pair of perforated clamping-bars through which said rod passes, a spring which forces said bars apart to effect the clamp-  
10 ing, and a rod which passes through one of

said bars and is connected to the other for the purpose of releasing the sash-supporting rod at will, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD HITTINGER.

Witnesses:

H. E. LODGE,

E. K. BOYNTON.