

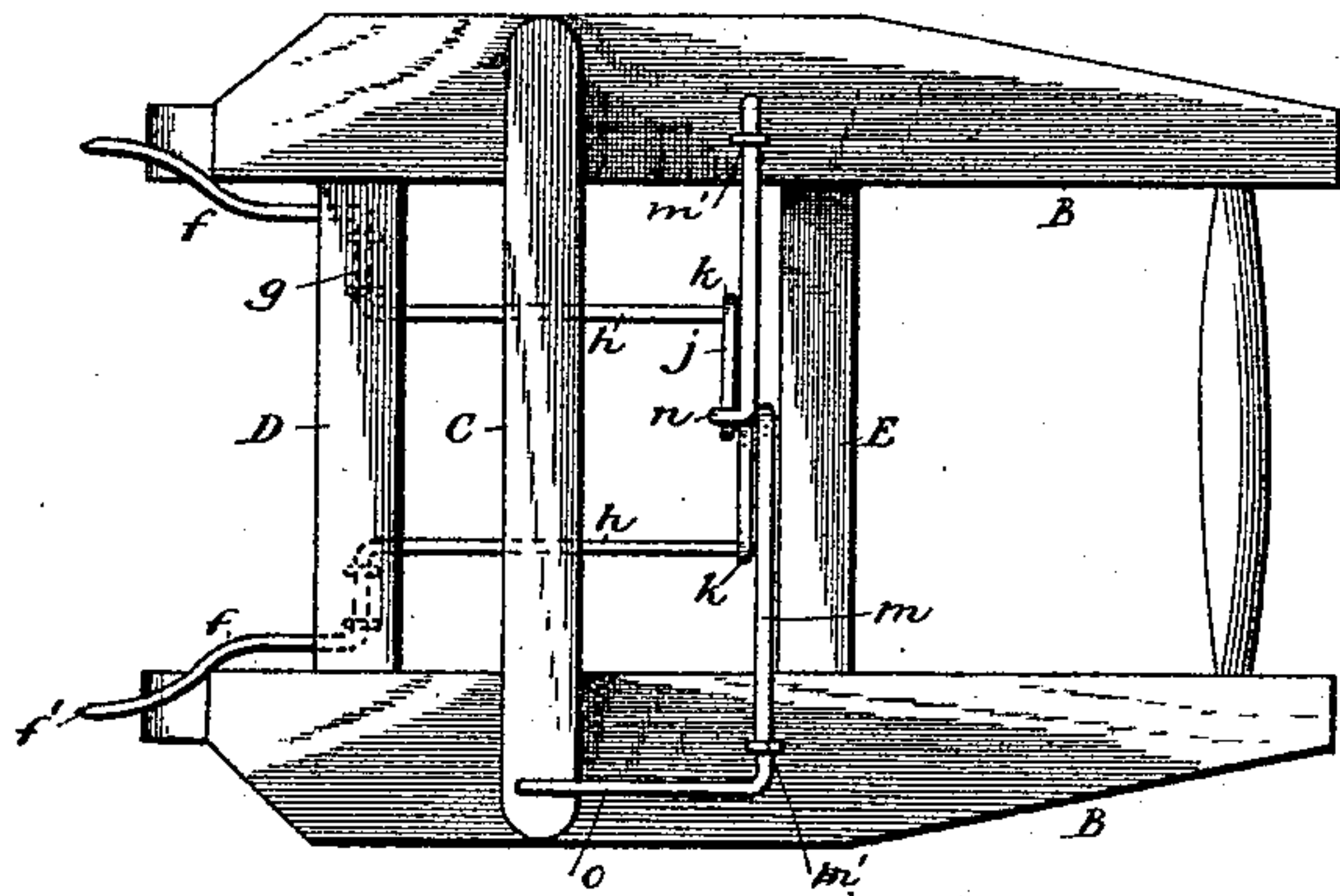
(No Model.)

W. H. LEE.  
SLED BRAKE.

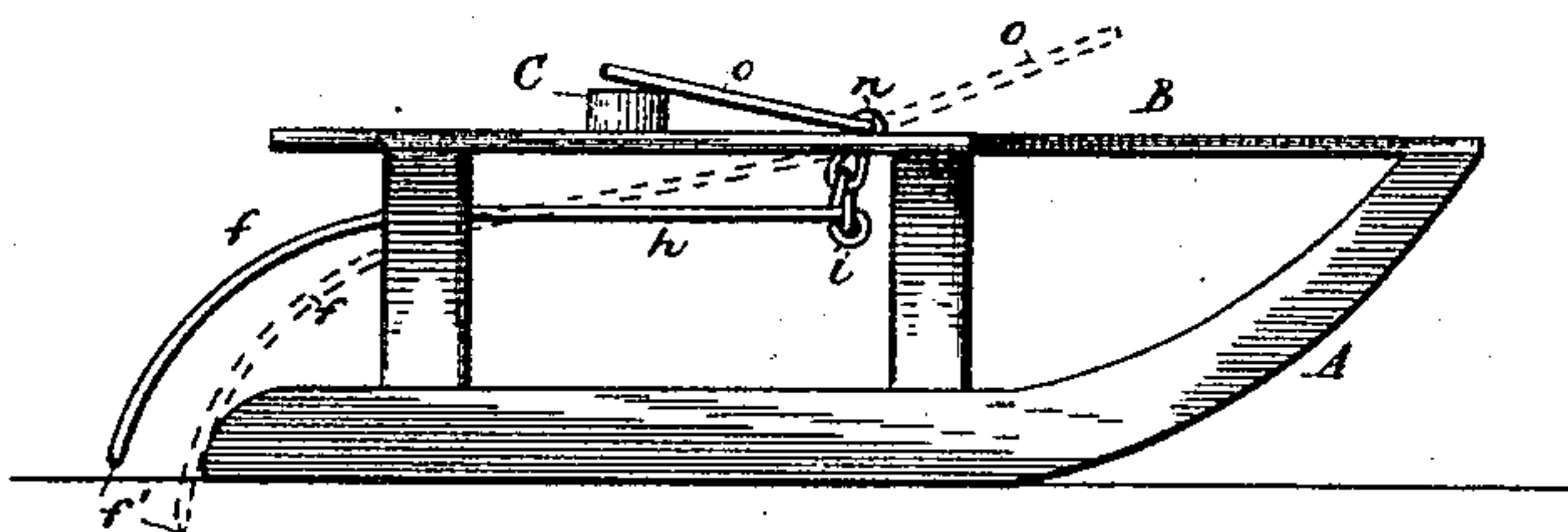
No. 436,312.

Patented Sept. 9, 1890.

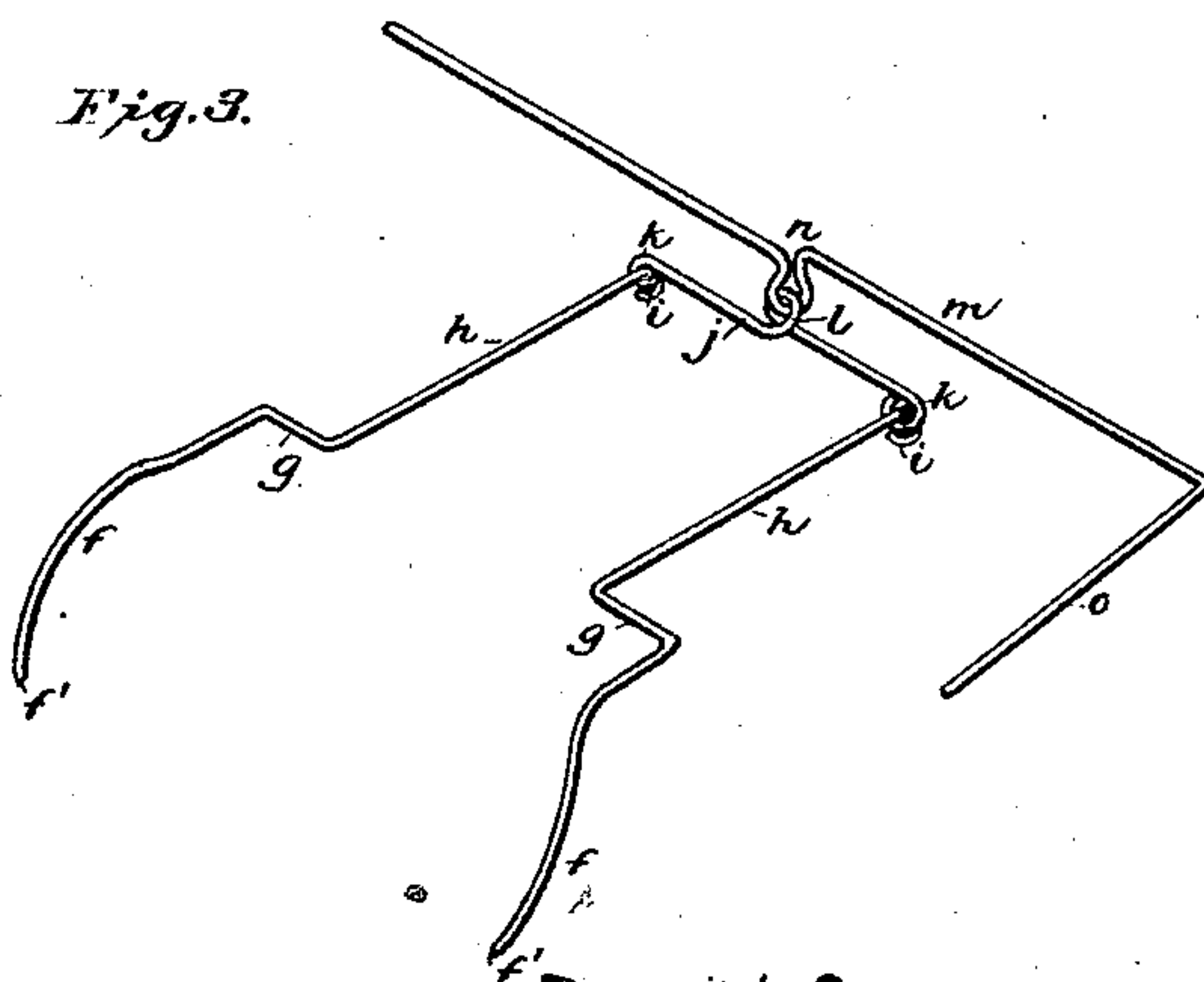
Fig. 1.



*Fig. 2.*



*Fig. 3.*



Witnesses:  
 Harry S. Rohrer,  
 Valentine Mendel

Wm H. Lee

by  
Crosby & Torian

Inventor

Attorneys

# UNITED STATES PATENT OFFICE.

WILLIAM H. LEE, OF MEDIAPOLIS, IOWA.

## SLED-BRAKE.

SPECIFICATION forming part of Letters Patent No. 436,312, dated September 9, 1890.

Application filed April 7, 1890. Serial No. 346,803. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. LEE, a citizen of the United States, residing at Mediapolis, in the county of Des Moines and State of Iowa, have invented certain new and useful Improvements in Sled-Brakes; and I do 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 the letters of reference marked thereon, which form a part of this specification.

My invention relates to sled-brakes, and its objects are, first, to retard motion effectually; second, to cause the retardation to be exactly proportional to the pressure applied; third, to provide for the passage of obstructions without altering the angle of the brake-lever; fourth, to minimize the number of co-operating elements, and, fifth, to attain these ends with structural simplicity and economy. I attain these ends by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a plan view of a sled embodying the essential features of my invention. Fig. 2 is a side elevation thereof, and Fig. 3 is a detached view of the brake.

The same letters indicate corresponding parts in the several views.

In traversing hilly land during the winter season, whether for the transportation of live or dead freight, a reliable conveyance is indispensable. The vehicle to this end should, on the one hand, not be too cumbersome to impede accelerated motion, nor on the other be destitute of appliances for checking and regulating such motion. For this purpose I have devised a light brake, capable of

exerting a positive check on the vehicle directly proportional to the manual pressure applied.

A sled or sleigh B of ordinary construction, provided with runners A and bolsters C, has transversely secured thereto a continuous lever *m*, bent upon itself centrally to form an extended loop *n*, and terminating in a crank *o*. Within the loop *n* a yoke *j* is pivotally adjusted by a corresponding loop *l*, which is terminally curved at either end to form the eyes *k*, wherein the correspondingly-curved ends of the levers *h* respectively abut. The levers *h* are fulcrally secured by lateral extensions *g* on the under surface of the rear cross-piece or bench of the sled, and thence curve downwardly to form the brakes or drags *f*, whose sharpened ends *f* will enter the ground or snow to retard the sled's motion upon application of pressure to the brake *o*. By reason of the pivotal adjustment of the yoke *j* an obstruction under either point *f* will cause a corresponding downward movement of the opposite point *f* and resulting upward movement of the other, thus clearing obstructions, and will not seriously impair the integrity of the brake.

Having thus described my invention, what I claim is—

As an improved article of manufacture, a sled-brake consisting of the lever *m*, the yoke *j*, and the counterpart levers *h*, constructed and arranged as shown, and co-operating in the correlation described.

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

WILLIAM H. LEE.

Witnesses:

J. B. GAULT,  
K. D. POOL.