

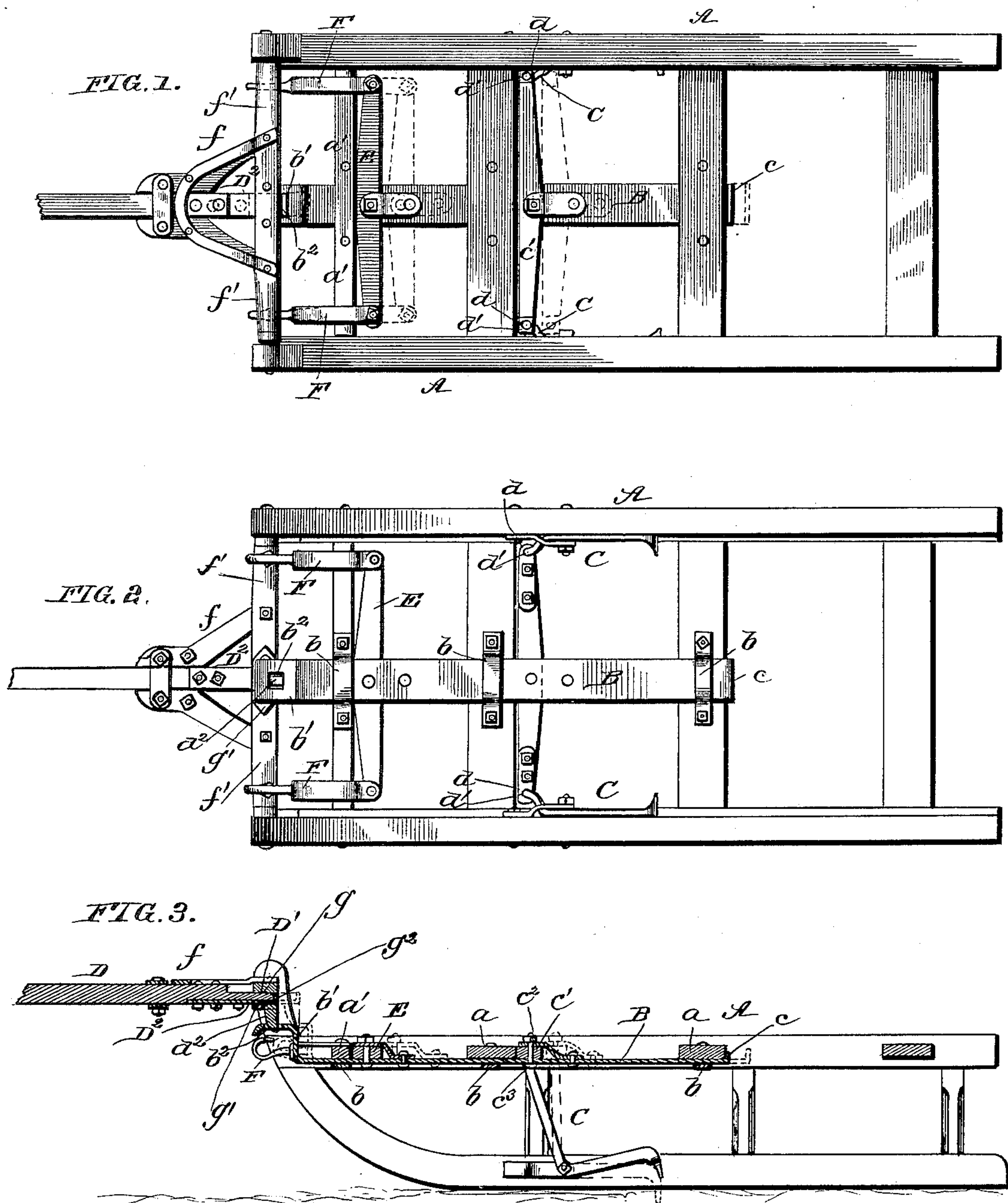
(No Model.)

C. E. HOLLEY.

SLED BRAKE.

No. 399,405.

Patented Mar. 12, 1889.



WITNESSES:
Fred G. Dieterich
J. H. Wister.

INVENTOR.
C. E. Holley
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

CLARENCE EUGENE HOLLEY, OF FORT FAIRFIELD, MAINE, ASSIGNOR, BY
DIRECT AND MESNE ASSIGNMENTS, OF TWO-THIRDS TO HARLAN JEROME
PALMER AND L. K. CARY & CO., OF SAME PLACE.

SLED-BRAKE.

SPECIFICATION forming part of Letters Patent No. 399,405, dated March 12, 1889.

Application filed June 21, 1888. Serial No. 277,854. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE EUGENE HOLLEY, of Fort Fairfield, in the county of Aroostook and State of Maine, have invented a new and useful Improvement in Sled-Brakes, of which the following is a specification.

This invention pertains to certain improvements in brakes for sleds, having for its object to effect the retarding of the movement of the sled or preventing the accelerated movement thereof on downgrade, while the tongue or shafts are capable of being elevated out of the way when the sled is out of use and to equalize the application of the pressure or force exerted in applying the brakes; and to these ends the nature of the invention consists of a central sliding plate or bar having connection with the brakes or shoes and with the tongue or shafts, so as to effect the requisite movement of said central sliding plate or bar; and it consists, secondly, of the central bar or plate having a whiffletree-like connection with the brakes or shoes and having its forward end stepped or angular and provided with a slot which receives a stud or projection on a rearward extension of the pole or tongue, and, finally, of a whiffletree connected to said central sliding bar or plate, and the draft clips or hooks connected to said whiffletree and sliding upon a cross-bar of the sled-frame, all substantially as hereinafter more fully set forth and claimed.

In the accompanying drawings, Figure 1 is a plan view of a sled embodying my improvement. Fig. 2 is an under side view of the same, and Fig. 3 is a longitudinal section thereof.

In carrying out my invention, I apply centrally of the sled A, in the direction of its length, a bar or plate, B, the same having a sliding movement in keepers or staples $b\ b$, secured to the under side of cross-bars $a\ a\ a'$ of the sled-frame. The rear end of the bar or plate B is turned up or otherwise adapted to form a stop, c , which limits its forward movement by contact with a cross-bar, a . This longitudinal bar or plate B is about centrally connected or pivoted to a whiffletree-like connection or cross-bar, c' , by means of

an angular plate or keeper, c^2 , riveted or bolted at one end to said plate or bar B, and receiving a nutted bolt, c^3 , passing through the plate or bar B and the connection c' . The cross-bar or connection c' has applied and fastened to its under side, so as to project beyond its ends, plates d , each of which is provided with an aperture, d' , the purpose of which will appear further on.

C C are the brakes, each of which consists of an elbow-lever pivoted at its angle to a runner of the sled upon the inside of the latter. The lower ends of the levers are each broadened into a proximately chisel-point shape, which is adapted to take into or have the required frictional contact with the surface. The upper ends of the levers are preferably rounded or made cylindric and passed through the apertures d' in the plates d of the connection or cross-bar c' , permitting of the requisite articulating movement between said parts as the brakes are operated. The forward end of the longitudinal bar or plate B is stepped or bent, as at b' , one (the vertical) arm of which stepped portion b' forms, in connection with the cross-bar a' , a stop for limiting the rearward movement of the said plate or bar B. The horizontal arm of said stepped portion b' of the bar or plate B is provided with a slot, b^2 , the function of which will be seen presently.

D is the tongue or pole, which has a sliding connection with the front hounds, f , which has its rear rocking cross-piece or axis, f' , pivoted in the upper forward ends of the sled-runners. The rear or inner end of the tongue or pole D is formed with a reduced rearwardly-extending portion, D' , which has applied to its under side a plate or casting, D^2 , also fitting upon the rear end of said extension or portion D' , and formed upon its under side with a stud or projection, d^2 . This stud or projection d^2 enters the slot b^2 of the stepped portion of the plate or bar B. Longitudinal movement or play is provided for the stud or projection d^2 of the casting or plate D^2 by forming a slot or recess, g , in the under side of the rocking rear cross-piece or axis, f' , of the tongue-hounds D and forming a recess or

slot, g^2 , in a clip or keeper, g' , bolted to the under side of said axis or cross-piece f' across the recess or slot g .

E is a whiffletree connected to the longitudinal endwise-movable bar or plate B, near the forward end of the latter and adjacently to the cross-bar a' , and having applied to its ends the draft or hooked clips or loops F F, through which passes the cross-bar a' .

In operation, it will be observed that upon the team being held back, as is practiced upon a downgrade, the tongue or pole will have a rearwardly-sliding movement, which will cause the stud or projection d^2 of the casting or plate D^2 of the tongue-extension D' to act upon the plate or bar B, so as to move the cross-bar or connections c' in such a manner as to effect the application of the brakes C C. As the team gains or reaches a level, it will be seen that the holding back of the same being unnecessary, permitting it to regain its former movement, the tongue or pole is thereby drawn forward, which will have the reverse effect upon the other parts from that above described, whereby the brake will be thrown out of operation or use.

Having thus fully described my invention, what I claim as new is—

1. The combination of the endwise or longitudinally movable plate or bar having connection with the longitudinally-movable tongue, with the brakes having a whiffletree-like or cross-bar connection with the longitudinally-movable bar or plate, substantially as and for the purpose set forth.

2. The sled-brake comprising the central or

longitudinal endwise movable plate or bar and the proximate whiffletree-like connection or cross-bar between said plate and the brakes, substantially as set forth.

3. The sled-brake comprising the longitudinal plate or bar actuating the brakes and having a stepped slotted forward end, and the sliding tongue or pole having a pendent stud or projection engaging said stepped slotted end of the longitudinal bar or plate, substantially as specified.

4. The sled-brake comprising the longitudinal endwise-movable plate or bar actuated by the tongue or pole and having connection about at its mid-length with a cross-bar about at its center, which cross-bar is provided at its ends with apertured plates, and the elbow-lever brakes having their upper ends entering the apertures of the end plates of said cross-bar, substantially as set forth.

5. In a sled-brake, the combination, with the endwise-movable plate or bar having a slotted stepped forward end and carrying about at its middle a cross-bar having apertured end plates which receive the upper ends of the brake-levers, of the sliding tongue having applied to its reduced rear end or extension a casting or plate provided with a stud or projection entering the slotted stepped forward end of the endwise-movable plate, and the whiffletree provided with the hook-clips, substantially as specified.

CLARENCE EUGENE HOLLEY.

Witnesses:

EDWARD L. HOUGHTON,
RICHARD L. BAKER.