

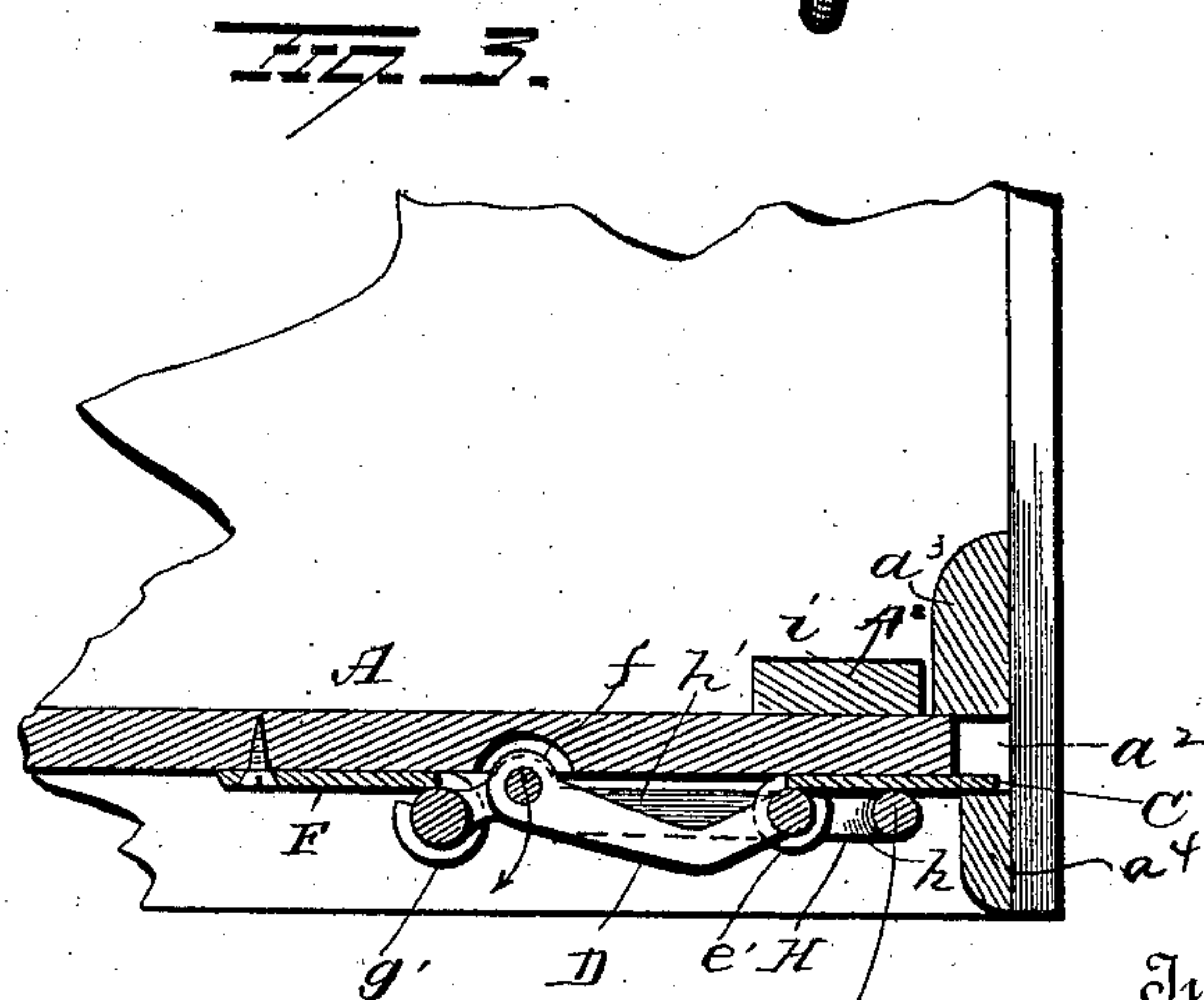
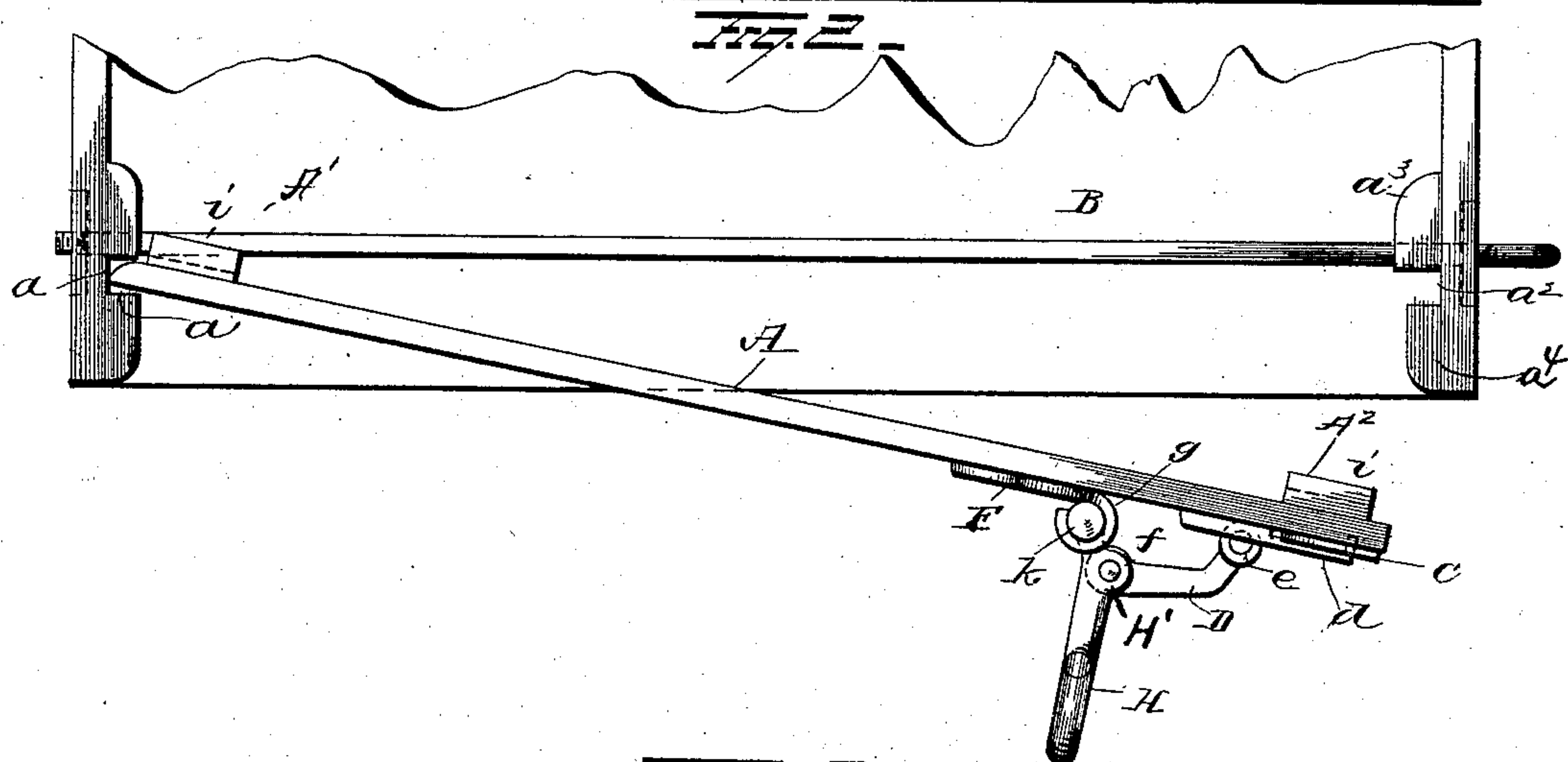
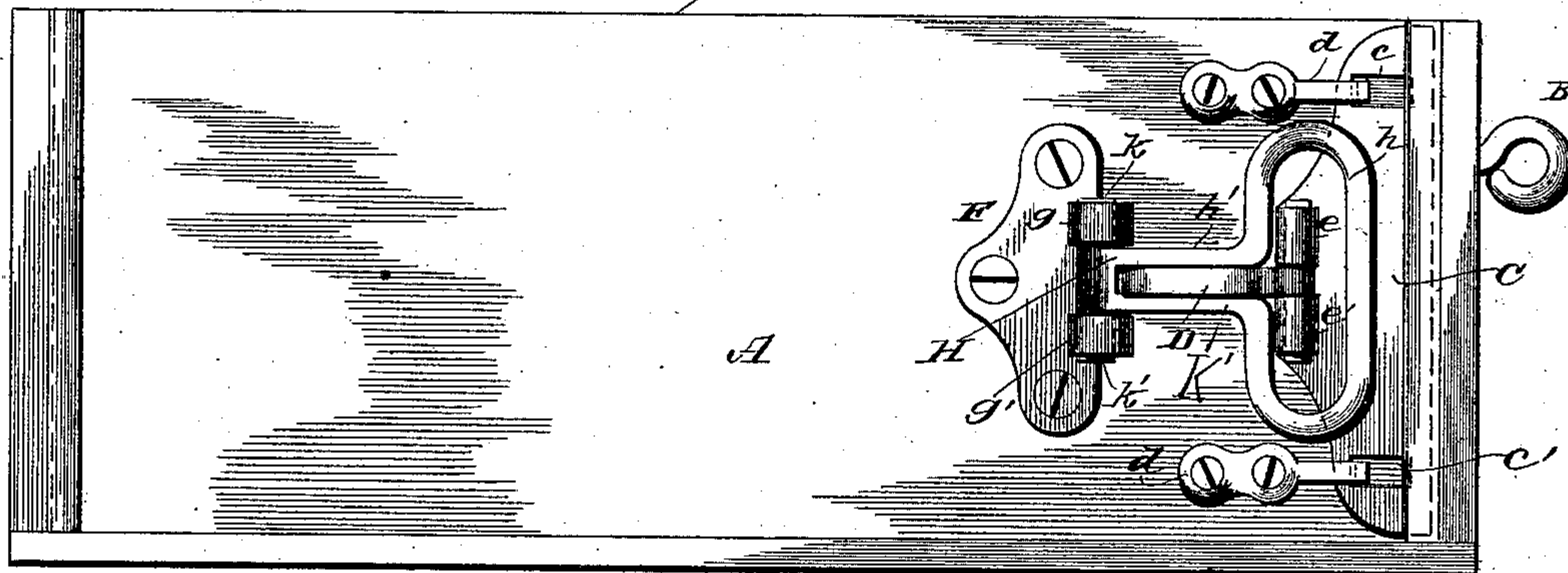
(No Model.)

J. T. SNODDY & P. J. LANG.

END GATE.

No. 368,901.

Patented Aug. 23, 1887.



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UNITED STATES PATENT OFFICE.

JAMES T. SNODDY AND PHILLIP J. LANG, OF MOUNT PLEASANT, IOWA.

END-GATE.

SPECIFICATION forming part of Letters Patent No. 368,901, dated August 23, 1887.

Application filed June 16, 1887. Serial No. 241,522. (No model.)

To all whom it may concern:

Be it known that we, JAMES T. SNODDY and PHILLIP J. LANG, of Mount Pleasant, in the county of Henry and State of Iowa, have invented certain new and useful Improvements in Locking and Releasing Devices for End-Gates; and we 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.

Our invention relates to an improvement in locking and releasing devices for the end-gates of wagons or gates of other character, as well as doors, the object of the same being to produce a simple and effective device that will securely fasten the end-gate in position, and one that will allow of the easy and quick removal of the end-gate from the wagon when desired.

A further object is to so construct the working parts of the locking and releasing device that they may be cast of malleable iron or soft steel and be assembled to form a complete device without costly machine-work, with a consequent reduction in first cost, thereby enabling the manufacturer to produce a reliable and convenient device at a nominal cost; and with these ends in view our invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of the end-gate in locked adjustment. Fig. 2 is a view of the same in unlocked adjustment, with the end-gate partially removed. Fig. 3 is a horizontal sectional view through the gate, showing it in a locked position.

A represents an end-gate having one end partially rounded, as at a , adapted to fit in the vertical groove a' , formed near the rear end of the wagon-body, afforded by the attachment of two straight upright strips secured to the inner surface of the wagon-body a short distance apart and parallel to each other. Upon the opposite side of the wagon-body these parallel strips a^3 a^4 are secured in position to the inner surface of the side-board B to afford a groove, a^2 , into which the locking mechanism of the end-gate is made to enter. The inner vertical strip, a^3 , is made considerably thicker than the other parallel strip, a^4 , which is separated from

the inner strip such a relative distance that a locking-plate or thin slide-bolt, C, together with the thickness of the end-gate A, will be accommodated in a manner that will presently be explained.

The length of the end-gate A is such in relation to the width of the wagon-body that while its end a is in position fully inserted to the bottom of the groove a' provided for its reception the vertical bottom A' will engage or bear against the inner strip of the groove a' .

B represents the stay-rod, adapted to engage both sides of the wagon-body and by such engagement prevent the same from spreading apart to improperly release the gate, and also to enter notches i in the battens of the end-gate to hold the gate down and prevent its rattling or bounding out the wagon-box. This stay-rod may be of any well-known and approved construction.

C represents the sliding locking-plate, composed, preferably, of sheet metal and provided near its top and bottom portions with transverse elongated slots c c' , which are adapted to admit of guides d d' for limiting the forward and rearward movement of this locking-plate. These guides consist, preferably, of metal strips having a small portion of their ends bent at right angles to form studs that enter the slots c c' , as stated, the guides being attached to the end-gate by perforated ears that are integrally formed on the opposite ends of the same. The sliding locking-plate further consists of extended flanges e e' , preferably made integral therewith, adapted to embrace (by folding over) the T-shaped termination of the link D. This link is pivotally secured to a handle, H, between the ears H' , and is made to lie between the parallel limbs of the slotted shank K' of this handle when the gate is in locked position.

The shank h' of the hooked handle H terminates at its opposite end in two laterally-projecting trunnions or journals, k k' , preferably formed integral and projecting at right angles with the shank h' , and adapted to be embraced by extended flanges g g' , formed on the bracket-plate F. The bracket-plate F consists, preferably, of a flat piece of metal having the extended flanges g g' , above referred to, formed integral therewith and bent in the form of loops, that embrace the T-shaped

termination of the handle H to secure same in swinging adjustment. The bracket-plate is provided at suitable intervals on its body with perforations for the insertion of screws or rivets to attach it to the end-gate.

When it is desired to secure the end-gate A in position on the wagon, the end a of the gate A, which is slightly rounded, is inserted in the vertical slot a' and the gate swung around until its inward movement is checked by the engagement of the battens A' A'' of the end-gate A with the stay-rod B and the end-gate with strip a^3 . The handle is then pushed down, when, on account of its connection with the sliding locking-plate, it forces said locking-plate into the slot a^2 , thereby securing the end-gate in position, the toggle-connection of the handle H, link D, and locking-plate C when folded tending to hold the gate A in locked position until the handle is intentionally caused to swing outwardly, and thus release the locking-plate C.

The advantages of our device are manifold, inasmuch as it combines simplicity and effectiveness with durability and cheapness.

It is evident that slight changes might be resorted to in the form and arrangements of the several parts described without departing from the spirit and scope of our invention; hence we would have it distinctly understood that we do not wish to limit ourselves strictly to the exact construction herein set forth; but,

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a locking device for the end-gates of wagons, the combination, with an end-gate, of a sliding locking-plate provided with guides, and a self-locking handle for operating and securing said locking-plate, substantially as set forth.

2. In a locking device for the end-gates of wagons, the combination, with an end-gate provided with locking mechanism consisting of a sliding locking-plate provided with guides

for limiting its forward and rearward movement, of a handle secured in rocking adjustment to a bracket-plate located on the end-gate and connected to the sliding locking-plate by a bar, said handle adapted to secure the locking-plate when in contact therewith, substantially as set forth.

3. In a locking device for the end-gates of wagons, the combination, with a body having vertical grooves therein, an end-gate, and a bracket-plate secured thereto and having extended flanges, of a handle the trunnions of which are embraced by said flanges, and a sliding locking-plate adapted to enter one of the vertical grooves in the body and be locked therein by the contact of the handle against the locking-plate, substantially as set forth.

4. In a locking device for the end-gates of wagons, the combination, with an end-gate, of a locking-plate made, preferably, of sheet metal and provided with slots near its upper and lower ends, of guide-bars secured to the end-gate and engaging the slots for limiting the movement of the locking-plate, substantially as set forth.

5. In a locking device for the end-gates of wagons, the combination, with a bracket-plate secured to an end-gate, of extended flanges formed integral therewith and adapted to be bent around the T-shaped termination of a handle and hold same in loose swinging adjustment, said handle provided with downwardly-projecting lugs or flanges cast or made integral therewith and having holes each in their bodies for the attachment of an operating bar, substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

JAMES T. SNODDY.
PHILLIP J. LANG.

Witnesses:

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H. A. AMBLER.