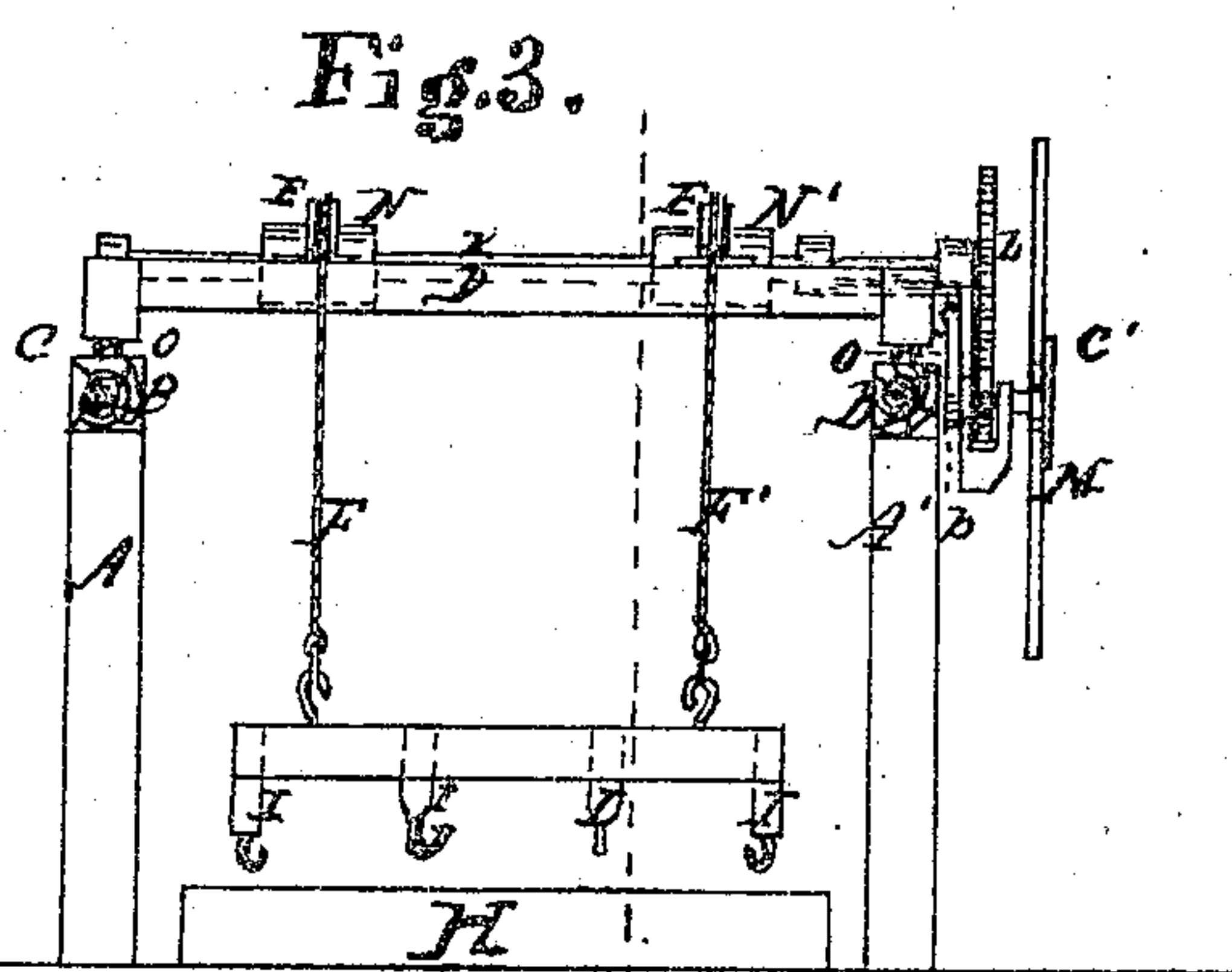
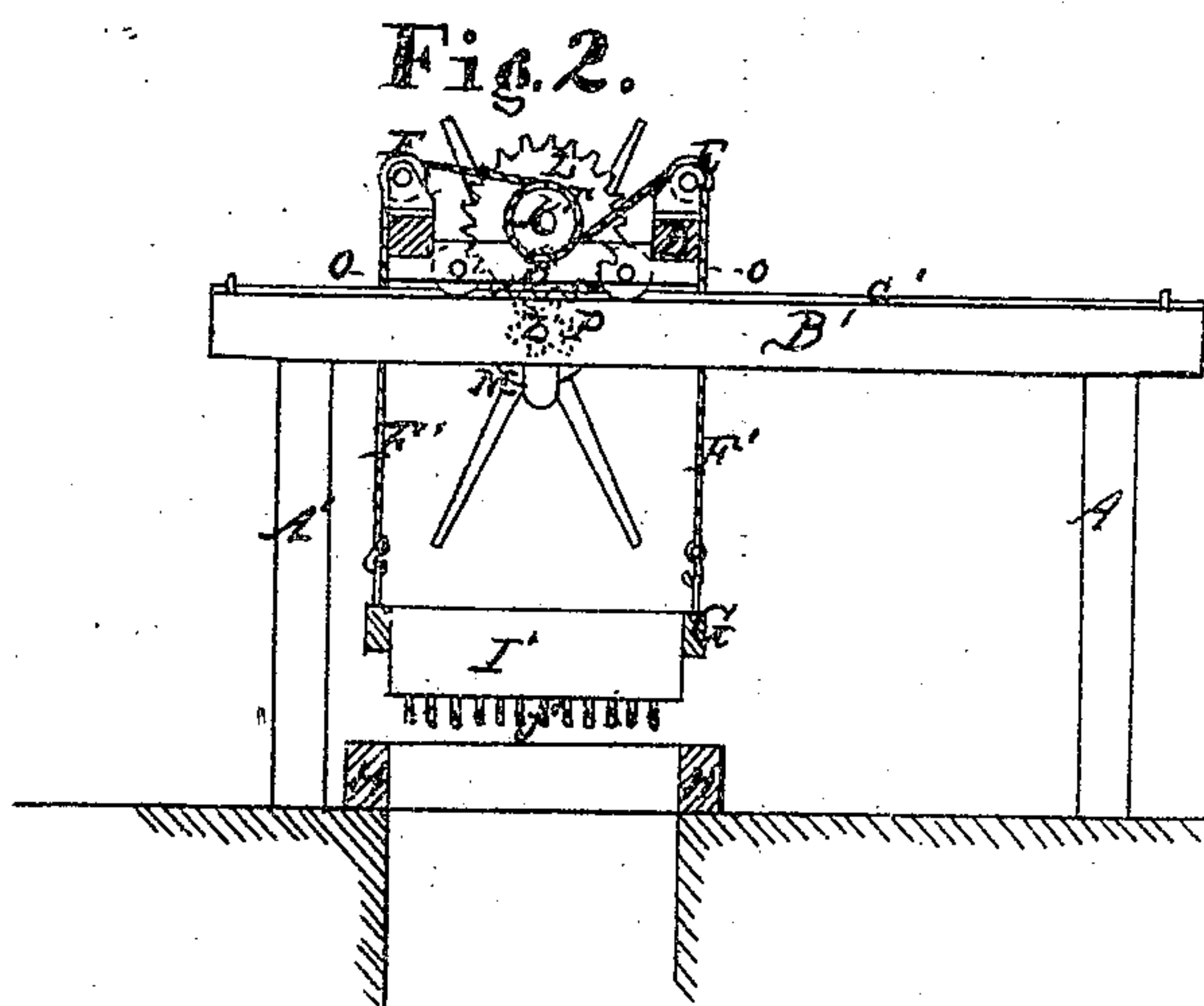
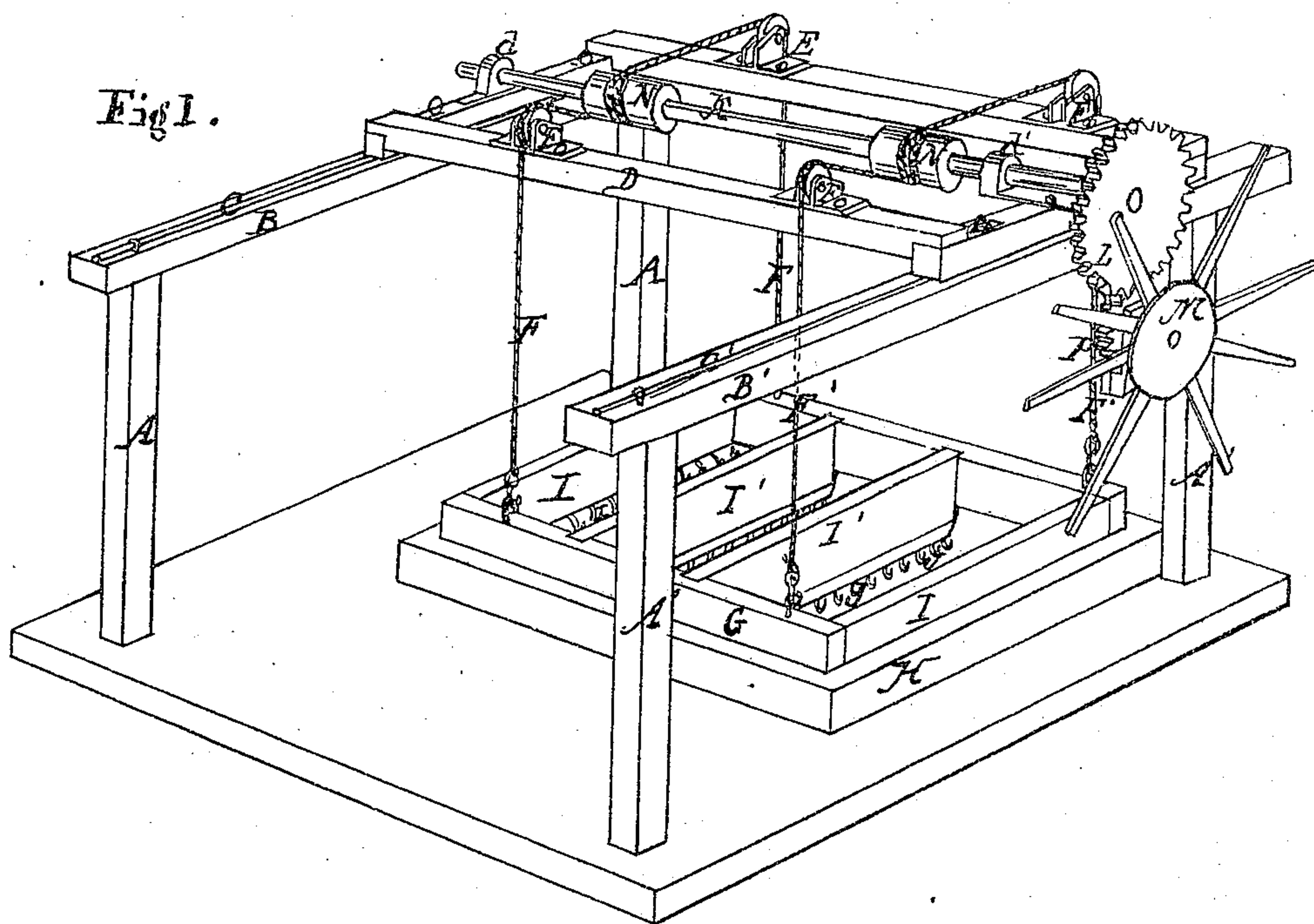


C. N. Farnam.
Machinery for Tanning.
N^o 72381
Patented Dec. 17, 1867.



Witnesses.
G. G. G. G. G.
J. M. Bowen

Inventor.
C. N. Farnam
By [Signature]

United States Patent Office.

CHARLES N. FARNAM, OF NORWICH, CONNECTICUT

Letters Patent No. 72,381, dated December 17, 1867.

IMPROVED MACHINERY FOR TANNING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, CHARLES N. FARNAM, of Norwich, in the county of New London, and State of Connecticut, have invented a new and useful Machine for Raising and Transferring Hides and Skins while in Process of Tanning; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which are made a part of this specification.

The object of this invention is to facilitate the process of tanning, by so arranging a frame that the hides or skins can be attached thereto, and raised from or lowered into the liquor in the vats collectively and simultaneously; also by the use of a railway-track, to transfer the hides or skins from one vat to another, however distant. In the drawings—

Figure 1 is a perspective view of my invention.

Figure 2 is a longitudinal section of the same.

Figure 3 is an end elevation of the same.

A A A' A' are posts, on which are mounted horizontal beams B B', forming elevated ways extending over and between the different vats, into which it is desired to place the hides during different stages of the tanning process, and, if desired, from thence to a suitable place for drying or stowing away. On top of these ways are secured rails C C', on which the frame D runs, its supporting-wheels or rollers O being grooved to correspond with the rails. Mounted in bearings *d d'*, on the frame D, is a shaft, K, having keyed to it, at proper points, drums N N' and a gear-wheel, L, which meshes with a pinion, P, on the driving-shaft, which is rotated by a windlass, M, or other suitable device, the driving-shaft being also provided with a ratchet-wheel, *p*, which is engaged by the pawl *p'*, for the purpose of holding the shaft from returning when the frame attached to it is elevated. The bearings for the driving-shaft are formed by a downward extension of the outer end of the bearing *d'*, which extends down a sufficient distance outside of the way A' B' to bring the windlass M within easy reach of the operator. F F F' F' are ropes, attached at one end to the drums N N', and which, after passing over sheaves E on the outer edges of the frame D, are attached at their other ends by hooks and staples or other suitable devices to the frame G. This frame is of similar form to the vat H, and its sides rest on the edges of said vat, when the hides are in the tan, its ends I and removable cross-bars I' extending into the liquor in the vat. On the inner sides of said ends, and on the lower edges of said bars, are hooks J J', from which the hides are suspended.

By turning the windlass M, the drums N N' are rotated, the ropes F F' wound on them, and the frame G I I', with the hides attached to it, is raised from the vat, when the hides may be inspected and replaced, or removed to any desired place, by propelling the frame D, from which the frame G is suspended, along the track C C'.

I am aware that a tanning-apparatus has before been used, in which the frame containing the hides is raised and lowered by a windlass, mounted in a carriage running on rails for transferring the hides from place to place. This invention, therefore, I do not claim.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. The winding of the ropes F F' on drums N N', one side winding over and the opposite side winding under the drums, thereby raising both sides of the frame G equally, substantially as shown and described.
2. Arranging the shaft, to which the motive-power is applied, by the combination of wheel L and pinion P, having a ratchet, *p*, and pawl *p'*, worked by a windlass, M, all arranged so as to pass the posts, thereby avoiding interference in transition from vat to vat, as specified.
3. The construction of the frame G I I', having a shoulder to rest on sides of vat, with lower edge of ends I and movable bars I' of the frame immersed in the liquor in the vat, when the frame is down, substantially as shown.
4. Also the two forms of hooks J J', one for ends of frame and one for movable bars, keeping the hides or skins at a suitable distance from each other, so that they will increase in thickness on exposure to the air when raised, and during the process of tanning; also allowing the hides or skins to drain when raised from the vats, thereby facilitating absorption, substantially as herein described, and for the purpose specified.

CHAS. N. FARNAM.

Witnesses:

GEO. FRED. LATHROP,

GEO. GILES.