

(No Model.)

M. LOFTIN.
BARREL ELEVATOR.

No. 533,364.

Patented Jan. 29, 1895.

Fig. 2

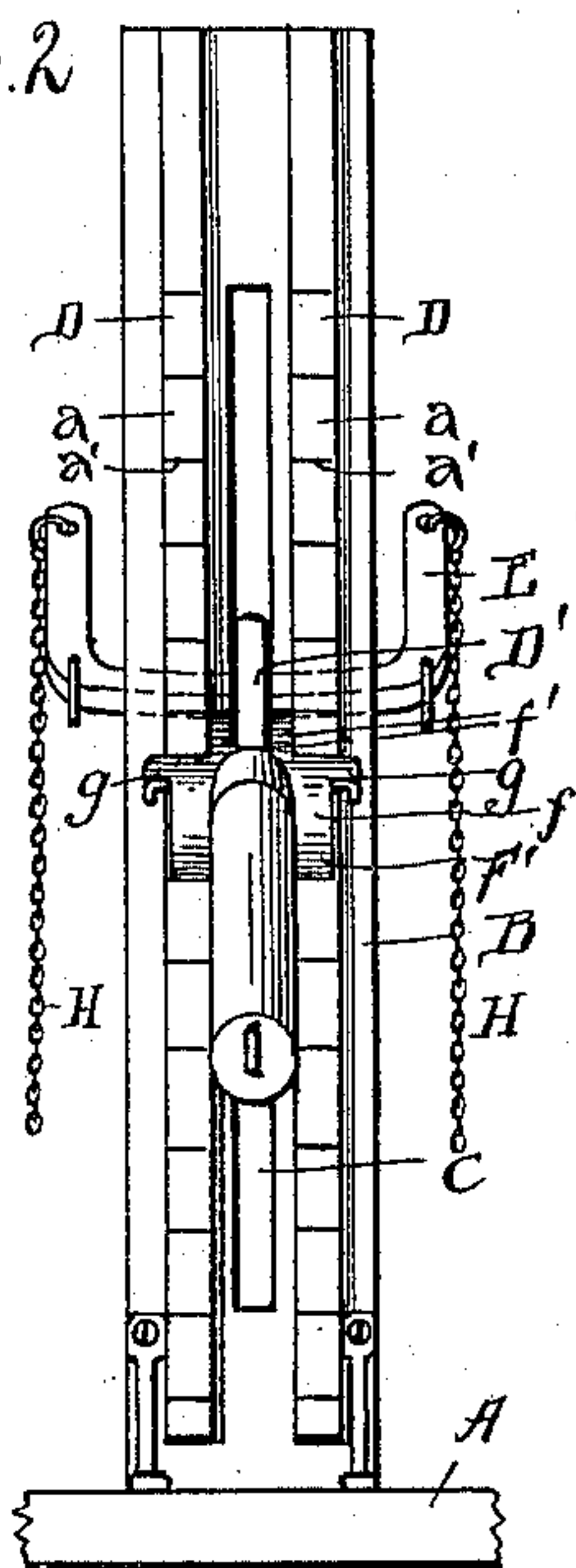


Fig. 1

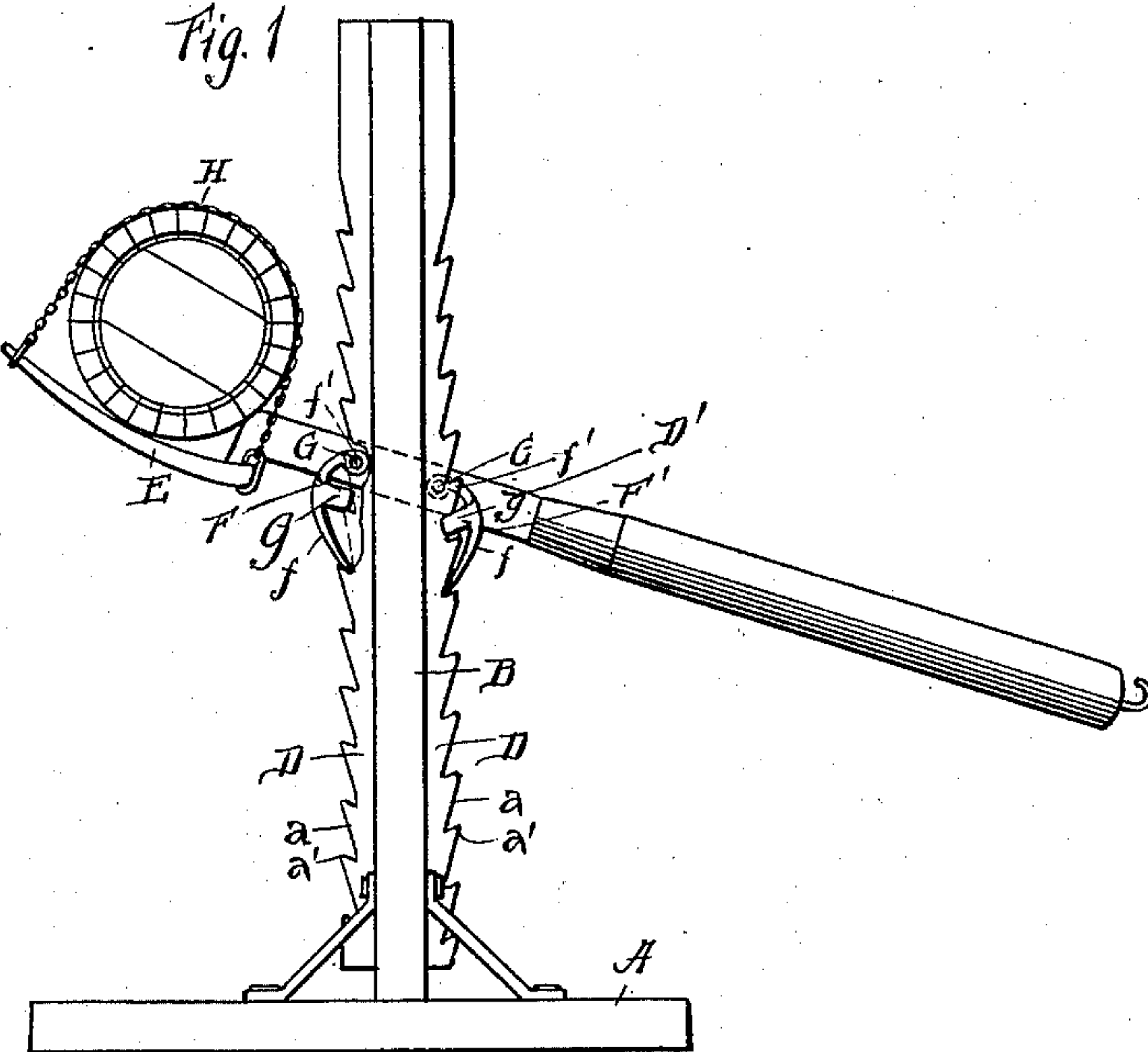
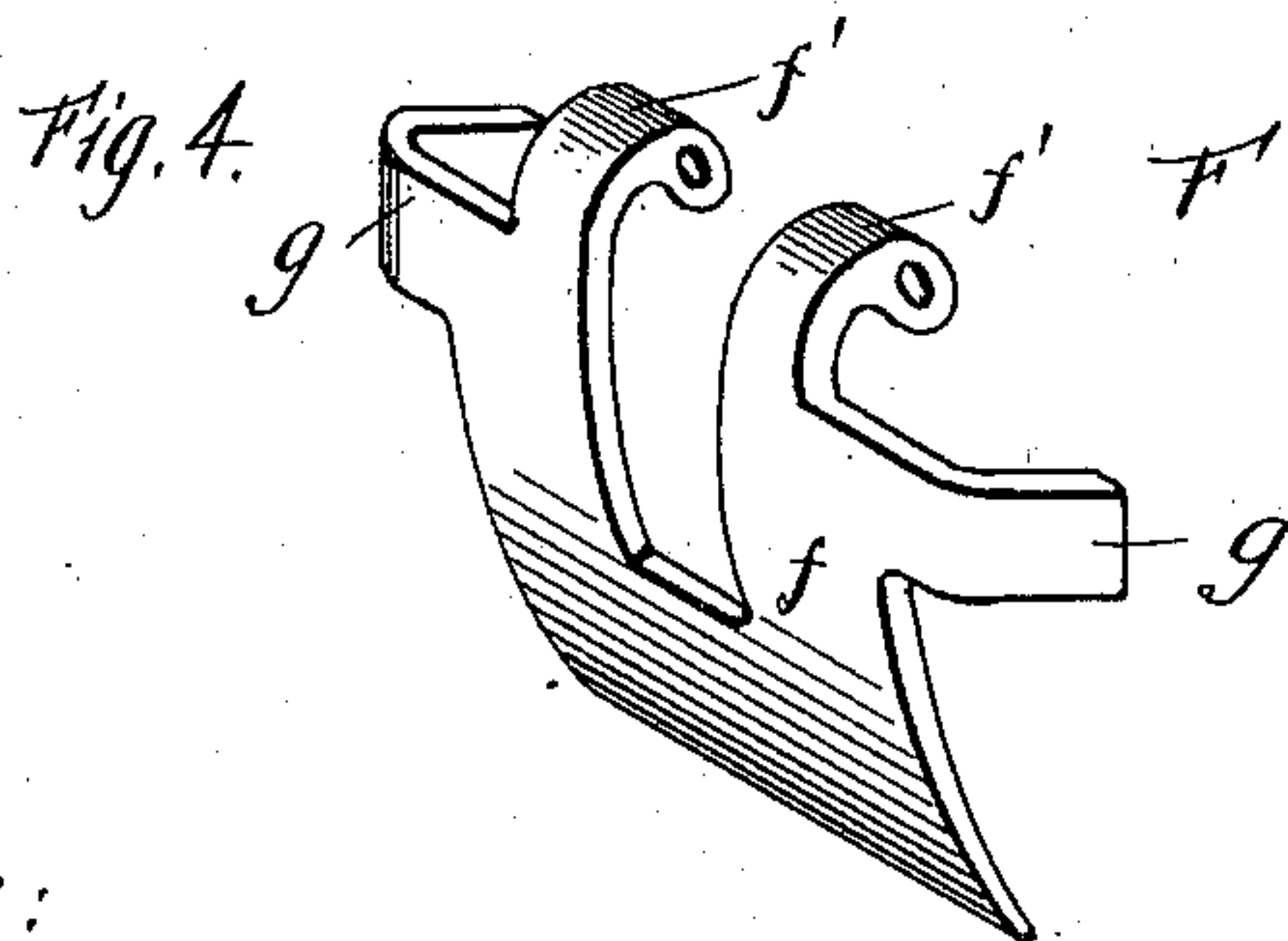
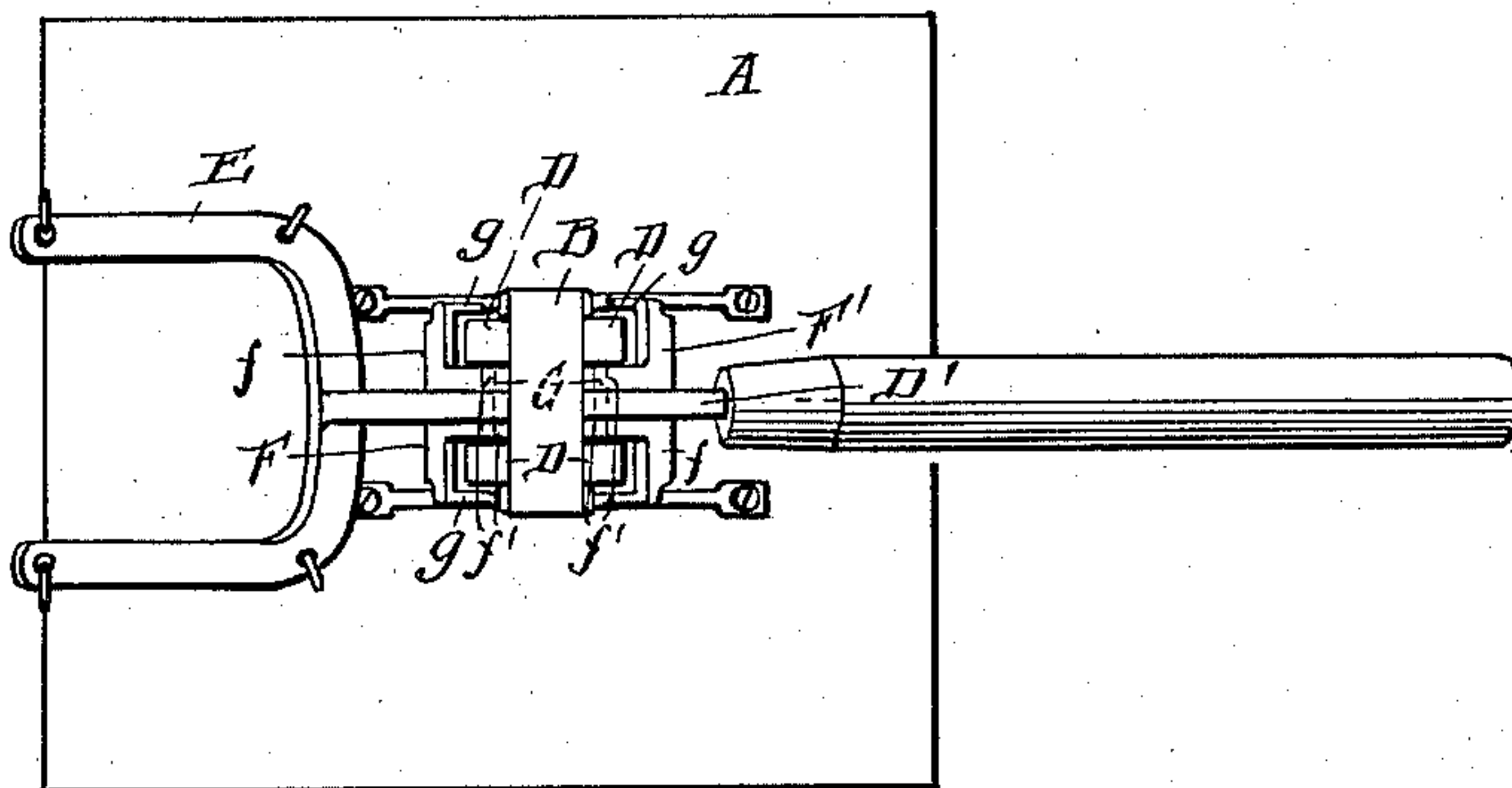


Fig. 3.



Witnesses:

Geo. M. Anderson
Phile Masi.

Inventor:
Melville Loftin
by E. W. Anderson
his Attorney.

UNITED STATES PATENT OFFICE.

MELVILLE LOFTIN, OF METCALF, ILLINOIS.

BARREL-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 533,364, dated January 29, 1895.

Application filed August 31, 1894. Serial No. 521,819. (No model.)

To all whom it may concern:

Be it known that I, MELVILLE LOFTIN, a citizen of the United States, and a resident of Metcalf, in the county of Edgar and State of Illinois, have invented certain new and useful Improvements in Barrel-Elevators; 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 letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a side elevation of the invention partially broken away. Fig. 2 is a front elevation of the invention. Fig. 3 is a plan of the invention. Fig. 4 is a detail of one of the dogs.

This invention has relation to certain new and useful improvements in barrel elevators, the object being to provide a simple, convenient, and readily operated device by means of which a barrel, or similar object or package can be elevated to the desired height to facilitate the discharge of its contents, or for other purposes; and the invention consists in the novel construction and combination of parts, all as hereinafter described and pointed out in the appended claim.

Referring to the accompanying drawings, the letter A designates a suitable base or support, to which is rigidly secured an upright B, having therein an elongated, vertical slot C. Upon each side of said slot, upon both faces of the upright, are secured vertical ratch-bars D, whose teeth have elongated inclines α , and shoulders α' which are also somewhat inclined from front to back. There are, therefore, four of these ratches, two upon each side of the upright, the shoulders α' of corresponding teeth of the ratches upon one side being in the same horizontal plane, but above or below the planes of the corresponding shoulders on the opposite face of the upright. The two ratch bars upon each side of the standard form between them a vertical way or groove of considerable depth.

D' designates a lever which extends through the slot of the upright, the longer arm of said lever forming a handle, and the shorter arm a seat or support for the article to be raised,

being formed into a broad curved fork E. Pivotaly attached to the said lever upon opposite sides of the upright are two similar pawls or dogs F, F', consisting each of a curved plate slotted to embrace the lever, and having at its upper edge a slotted curved tongue f , which extends into and fits approximately the vertical way or groove between the ratch-bars. The end portion of the tongue is formed with an eye or bearing f' to receive a pin G which passes loosely through the lever. It will be observed that by extending this tongue into the way or groove the pivotal point of the pawl or dog is brought considerably inside of the line of the teeth, whereby the gravity of the pawl or dog will throw it into engagement with such teeth more effectively. By reason of this fact, it is not necessary to employ a massive or eccentrically weighted pawl, as would be the case were the pivotal point outside of the line of teeth. The inner ends of the tongues owing to their having contact with the walls of said vertical ways or grooves, act as stops to limit the backward and forward throw of the lever, and as guides to prevent lateral play of the lever in the slot of the standard. At g g said plate is formed with lateral arms or projections which engage the lateral edges of the ratch bars, and set as guides to prevent lateral swing of the dog or pawl. The lower edge of each dog or pawl is arranged to take a bearing upon the shoulders α' of the ratch-bar.

The operation of the device is as follows: The barrel or other object to be elevated is placed upon the fork E, and the lever is operated. Upon the up stroke of the power arm of the lever, said lever fulcrums upon the dog F, which takes a bearing upon the shoulders of the teeth upon that side of the upright, the other dog F' riding loosely on the inclines α of the approximately opposite teeth upon the opposite ratches, until it drops upon the shoulders thereof. Upon the down stroke of the power arm, the fulcrum is upon the dog F' and the dog F rides loosely upon the ratches. It will be obvious therefore, that the continued operation of the lever results in a step-by-step climb of the lever and dogs upon the ratches, raising the barrel or other object. The lever, moreover, will lock itself

at any desired elevation by the engagement of both dogs with the ratches. When, however, the lever is loaded with a barrel or other object, and is locked in any position on the
5 standard, the lock is effected by the dog F which receives all the weight, the other dog being lifted out of contact with the rack teeth, and the greater the weight sustained by the lever, the more secure is the lock. To lower
10 the lever, both dogs are held away from the ratches. It will be observed that the fork of the lever is offset or dropped below the plane of the lever, whereby the forward end of said lever forms a shoulder or abutment which
15 holds the barrel from pitching or rolling toward the standard as the lever is operated. Chains H are also usually provided to secure the barrel on the fork.

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

In a device for elevating barrels or the like

the combination with the vertically slotted standards, and the ratch bars secured to each face thereof and forming between each pair
25 thereof a vertical way or groove, of the lever extending loosely through the slot of the standard, and a pair of dogs or pawls fulcrumed to the said lever upon opposite sides of the standard, said dogs having each a
30 curved tongue engaging the way or groove between the adjacent ratch bars, said tongues having at their inner ends the bearings for the pivots whereby such pivots are brought
inside the line of the teeth of said bars, said
35 tongues also acting as stops and guides, substantially as specified.

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

MELVILLE LOFTIN.

Witnesses:

CHARLES MANUEL,
FRED HOOVER.