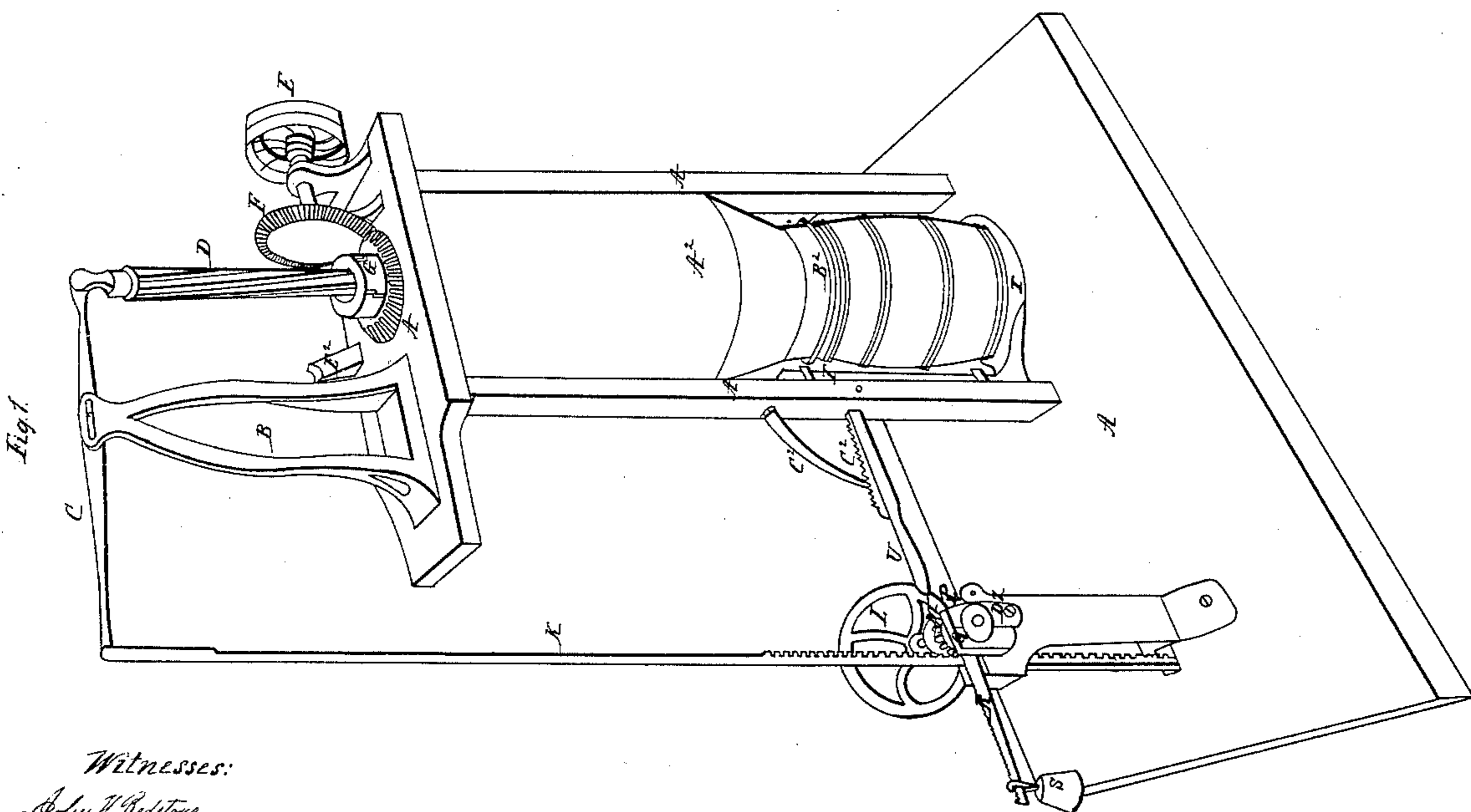
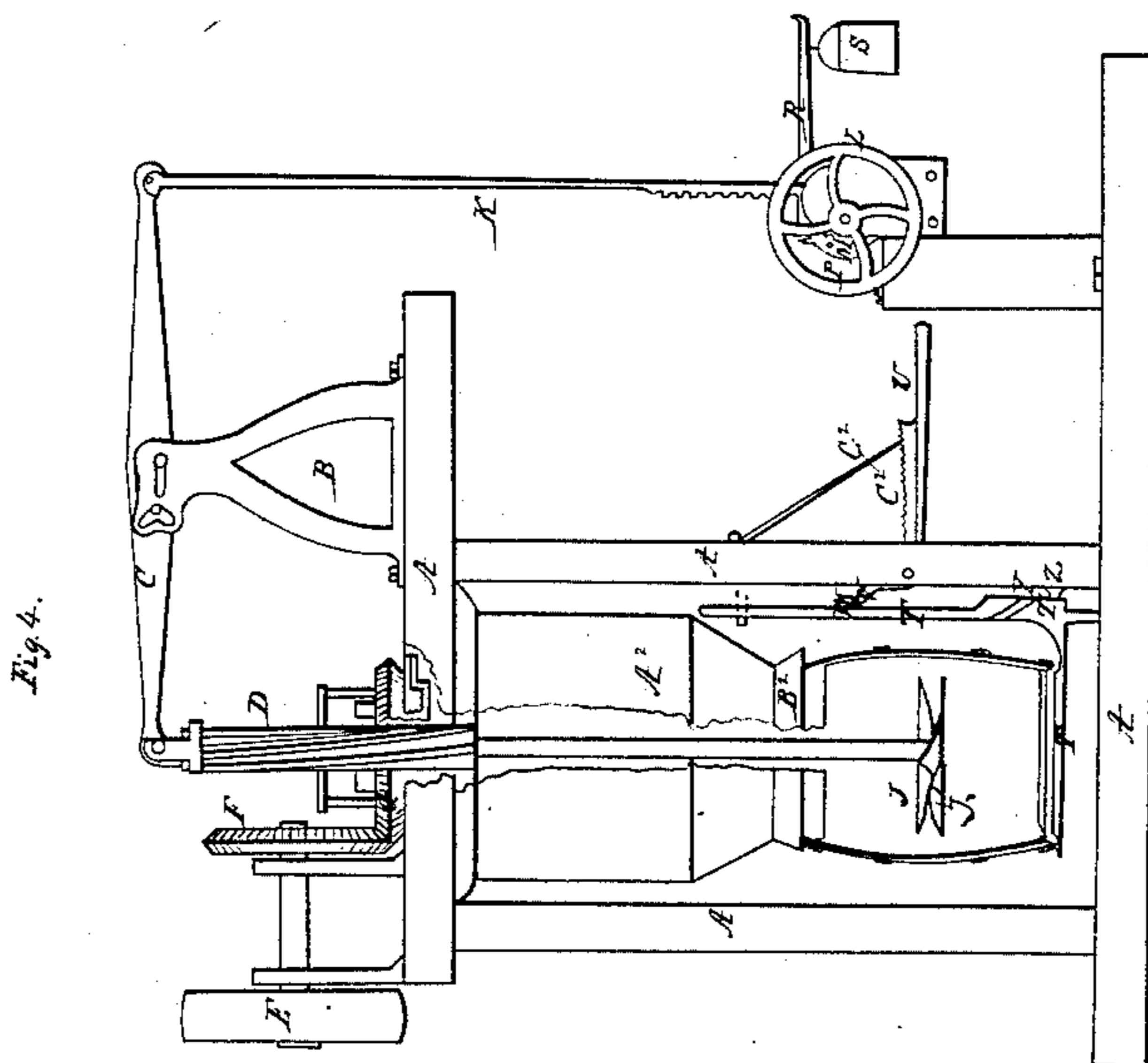
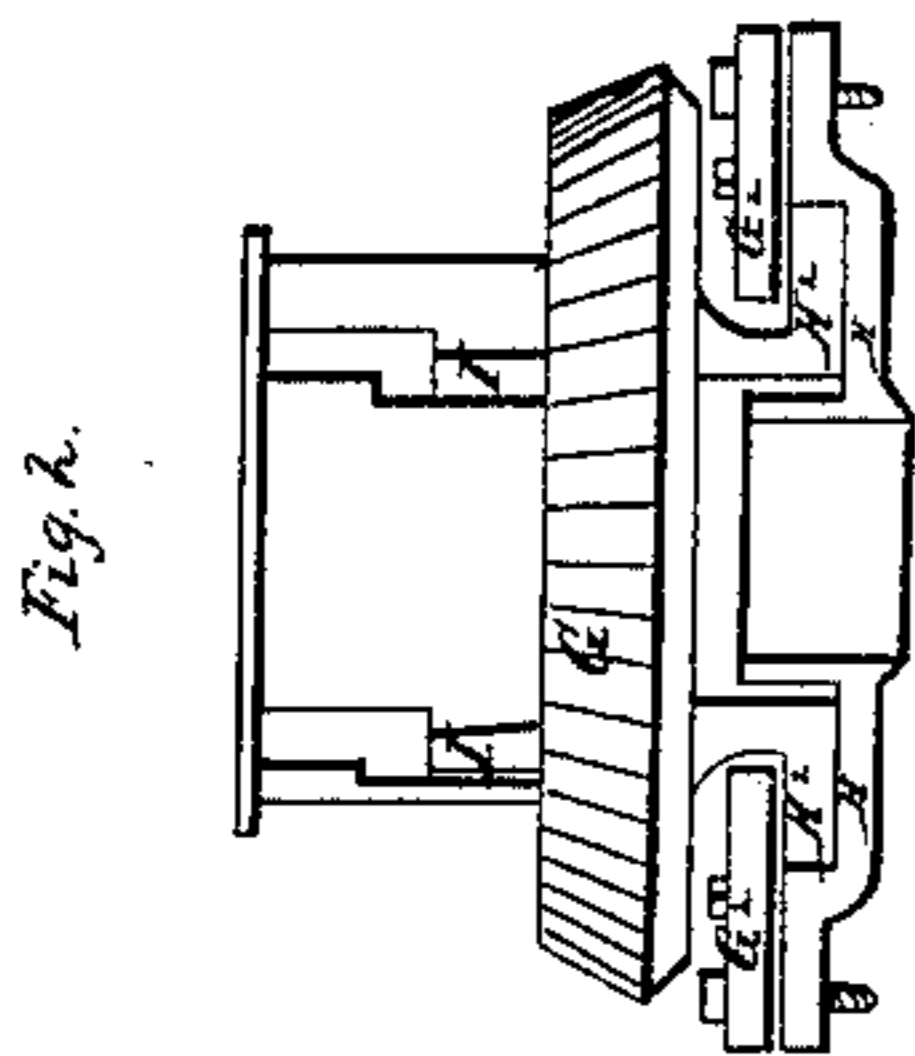
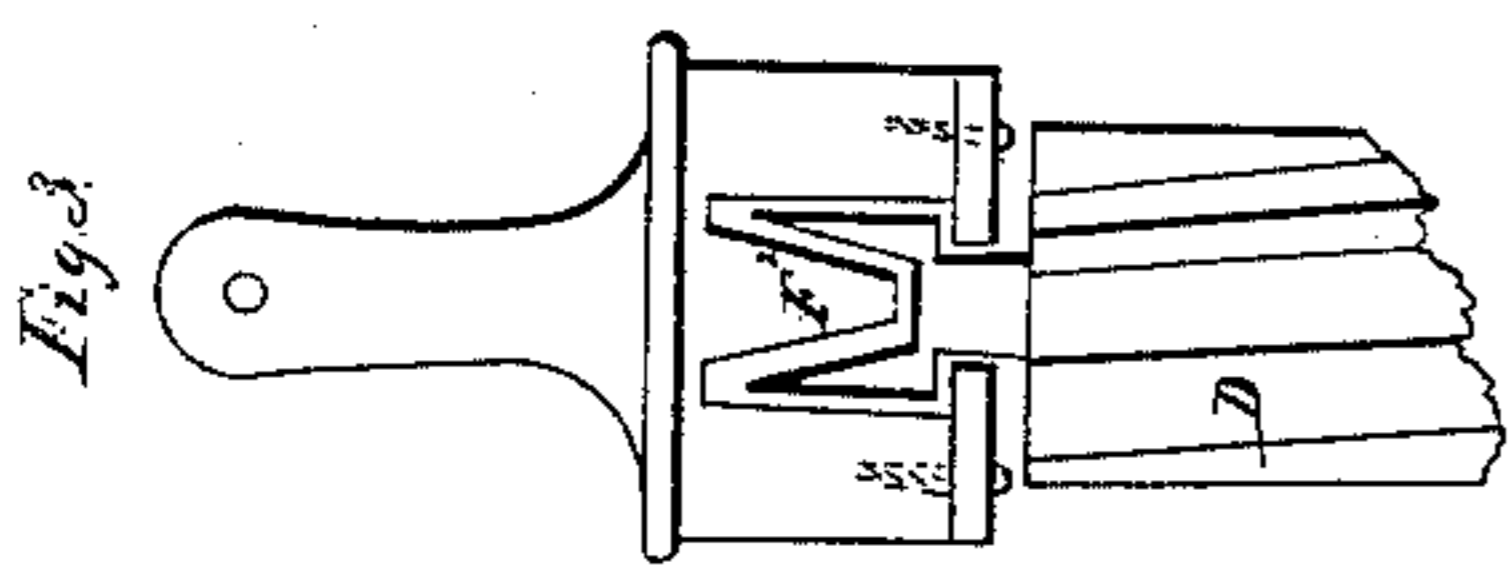


S. Taggart,
Flour Packer.

N^o 24,963.

Patented Aug. 2, 1859.



Witnesses:

John H. Redstone
Richard S. Lee

Inventor:

Samuel Taggart

UNITED STATES PATENT OFFICE.

SAMUEL TAGGART, OF INDIANAPOLIS, INDIANA.

FLOUR-PACKER.

Specification of Letters Patent No. 24,963, dated August 2, 1859.

To all whom it may concern:

Be it known that I, SAMUEL TAGGART, of Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Flour-Packers, of which the following is an exact description, reference being had to the accompanying drawings and the letters marked thereon.

Figure 1, is a perspective view showing the construction and general arrangement of the machine and especially the operation of the friction brake. Fig. 2, is a sectional view showing the arrangement of the clutch which operates the packing shaft. Fig. 3, is a sectional view showing the bearing upon the top of the shaft with the oil cup surrounding the same. Fig. 4, is a plane side view showing a section taken from the clutch flour tube and barrel for the purpose of showing the operation of the packing shaft and auger.

The advantages of the various combinations arrangements and devices by which I accomplish what has not been done by other packers will be understood from the fact that the objects sought in the perfection of the whole invention have been first and chiefly the construction of an auger packer which is entirely portable and which may be placed in mills already constructed without interfering with their machinery or in any way cutting the floor or changing the arrangement of the same; secondly, weighing the amount or in other words regulating the packing of each barrel to suit the size of the same, and prevent packing more flour in the large, than in the small barrels; thirdly, holding the barrel firmly, not allowing the same to turn, while packing, and preventing the escape of flour, by a device which does not endanger the bursting of the hoops, or other injury being done to the barrel; fourthly, the construction of a barrel lifter which may be placed entirely above the floor of the mill. Its advantage in this respect is best shown when the mill is built upon a ledge of rocks which nearly touch the floor of the same.

I will now refer to the parts of the machine as they are lettered in order to show its construction and operation.

A, A, A, A, is the frame to which is attached the whole of the machinery of the packer.

B, is an upright frame designed to support the lever or walking beam C, which

operates the packing shaft D, raising and lowering the same.

E, is a pulley which operates the beveled wheel F, which gears with and gives motion to the clutch wheel G, which has its bearing and operates in the oil pot H.

The flanches or wings upon the top of the packing shaft D, serve as levers in turning the same, and are operated by the clutch plate I, I, through which they pass, as the shaft D, is raised or lowered. The two lipped auger J, J, is attached to the lower end of the packing shaft D. The rod K, operates the walking beam C, and is operated by the hand wheel L, and toothed wheel or pinion M. The pawl P, works in the ratchet O, which is upon the same shaft with the hand wheel L, and friction brake Q. The friction brake is operated by the lever R, and weight S. The barrel lifter is composed of platform and upright post T, T. The upright post working in guides or loops which are attached to the main frame which allow its raising, lowering and turning on its axis for the purpose of swinging the barrel around upon the scales while it still remains upon the platform of the barrel lifter.

U, is a handle or lever by which the cam V, is operated under the projection or bearing W. The friction drum X, is upon the same shaft with the hand wheel L, the ratchet wheel O, and pinion M.

The following is the operation of the machine: The barrel being placed upon the platform T, which rests upon the scale the weight of the same being balanced with the scale, the lever U, being operated, the cam V, turning upon its axis and sliding under the projection W, raises the barrel lifter T, T. As the same is raised the pin Z working in the slot or groove Y throws the barrel around until it reaches a position directly under the mouth of the flour tube A², when the groove Y, running perpendicularly holds the barrel from any side motion while it is raised perpendicularly to the mouth of the flour tube A² and held firmly against the projection B², by the cam V, so that barrel cannot be moved by the operation of the auger in packing nor can any flour escape over the top of the barrel. This is not accomplished where the annular projection or shoulder is not used. Where the tapering mouthed tube is used the barrel must either fit loosely upon the same or the hoops are in

danger of being burst off, while by the use of my plan the pressure or force is against the end of the staves and does not injure the barrel. The packing shaft is lowered into the barrel, the auger running down to the bottom of the same. This is done by relieving the ratchet O, and operating the hand wheel L, raising the rod K and causing the walking beam C, to operate upon its fulcrum in the frame B, and force the flanches upon the packing shaft D, down through the openings or passages made for the purpose in the clutch plate I, I. The flour falling upon the auger J, J, as it revolves rapidly is laid in thin layers according to the pressure or force applied to the packing shaft by the friction brake which I will now describe. It is composed of two parts or pieces of wood so formed as to surround the friction drum X, being open at the bottom and connected at the top by a spring which has a tendency to throw the brake open. The fulcrum D², is placed in the lower edge of the part opposite the lever and weight R, and S. The advantages of this brake are seen in the fact that while it acts with great force as a brake, while the flour is being packed into the barrel, it is instantly relieved of friction when the weight S is removed and the hand wheel turned in the opposite direction for the purpose of lowering the auger into the barrel, and that when the weight S, is not removed the motion of the brake relieves the friction. By the use of this brake with its lever and weight the operator can vary the amount of flour or the density to which the same is packed, instantly by sliding the weight S, upon the lever R.

The top of the shaft D, as shown in Fig. 3, is constructed with an oil cup upon the same, in the bottom of which the bearing F², rests as the shaft D, is revolved; by which arrangement a safety oil cup is formed, insuring a good supply of oil without danger of greasing the packing shaft and making the friction very light. The advantages of the wings or flanches upon the packing shaft D, are seen from the fact that they serve as levers being acted upon by the clutch plate I, I, in packing where a considerable force is needed as is the case with my packer with which I can pack a barrel of flour in three quarters of a minute putting over two hun-

dred pounds in a common barrel. By the use of the oil cup H, H, with cap G², G², holding the flange H², H², (which is attached to the clutch wheel G,) making it unnecessary to have more than one bearing or journal for the clutch and the arrangement of the bearing at the top of the shaft D, without diminishing the capacity of the machine, I am enabled to shorten the packing shaft, so that using the barrel lifter described I am enabled to place the whole machine in the single story of a mill. The cam V, which operates the barrel lifter is so constructed that when the barrel begins to be raised the bearing against the projection W, being nearly over the center of its axis, raises the barrel slowly but gradually increasing in motion, the periphery of the cam rising more rapidly from its axis. As the barrel is brought near the annular projection or shoulder B², the motion is again decreased from the fact that the bearing of the cam is brought nearly over the center of its axis and that at that part the periphery of the cam approaches a true circular form centering at the axis of the same. The advantages gained by this are first that it prevents concussion when starting and stopping; secondly, that it gives a great leverage for holding the barrel in place while packing.

The great advantage which this machine possesses over all other is shown in the fact that while its operation is perfectly simple it does its work better and performs double or treble the amount of work performed by any other packer of a portable kind.

What I claim and desire to secure by Letters Patent is,

1. The oil pot H, H, with cap G², G², when operated in connection with the clutch wheel G, and shaft D.

2. The cam V, in combination with the barrel lifter T, T, when constructed and operated as and for the purposes set forth.

3. The combination and arrangement of the friction brake Q, rod K, walking beam C, packing shaft D, and barrel lifter T, T, when the whole is combined and operated as and for the purposes set forth.

SAMUEL TAGGART.

Witnesses:

JOHN H. REDSTONE,
RODMAN L. GEE.