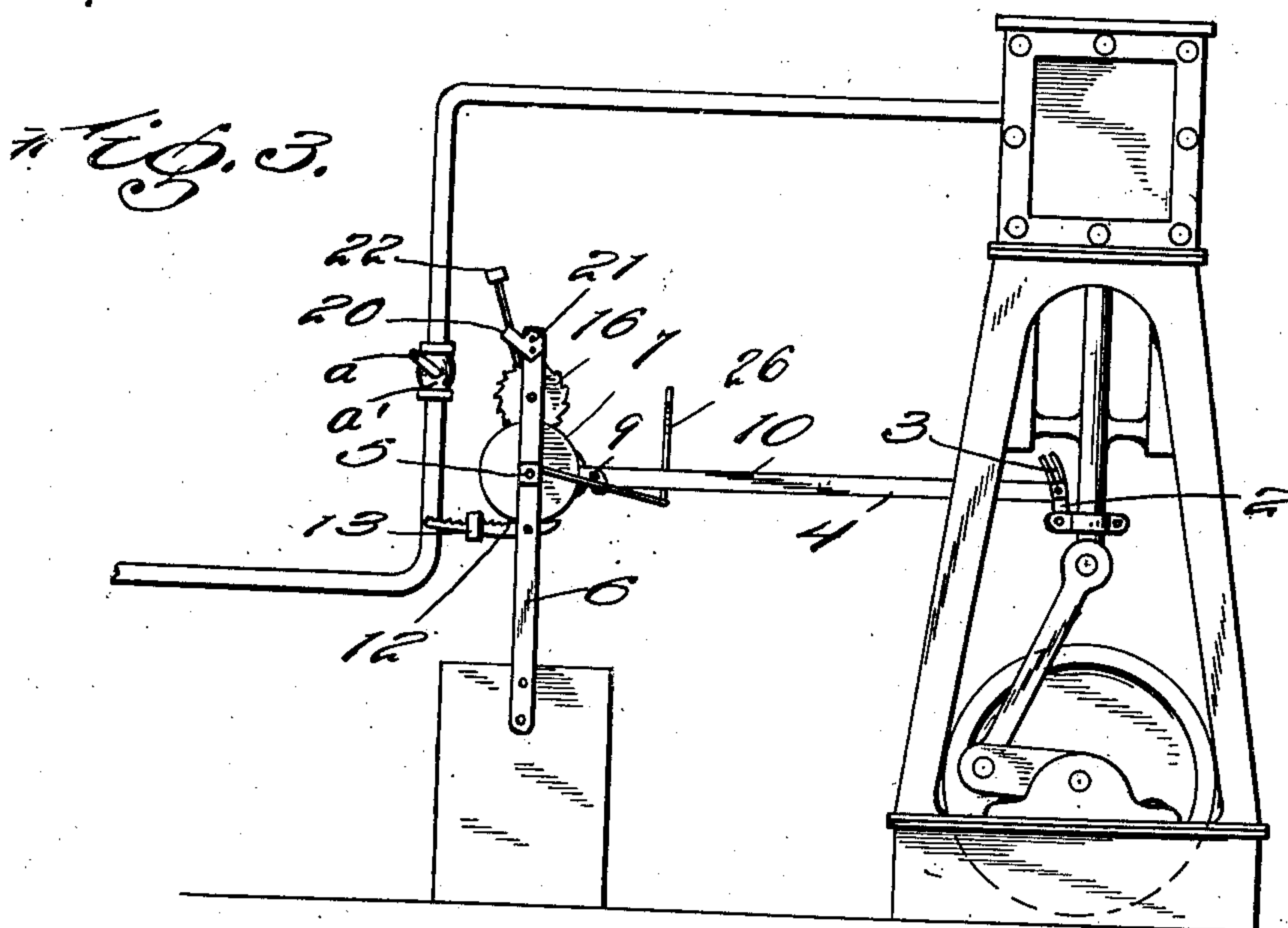
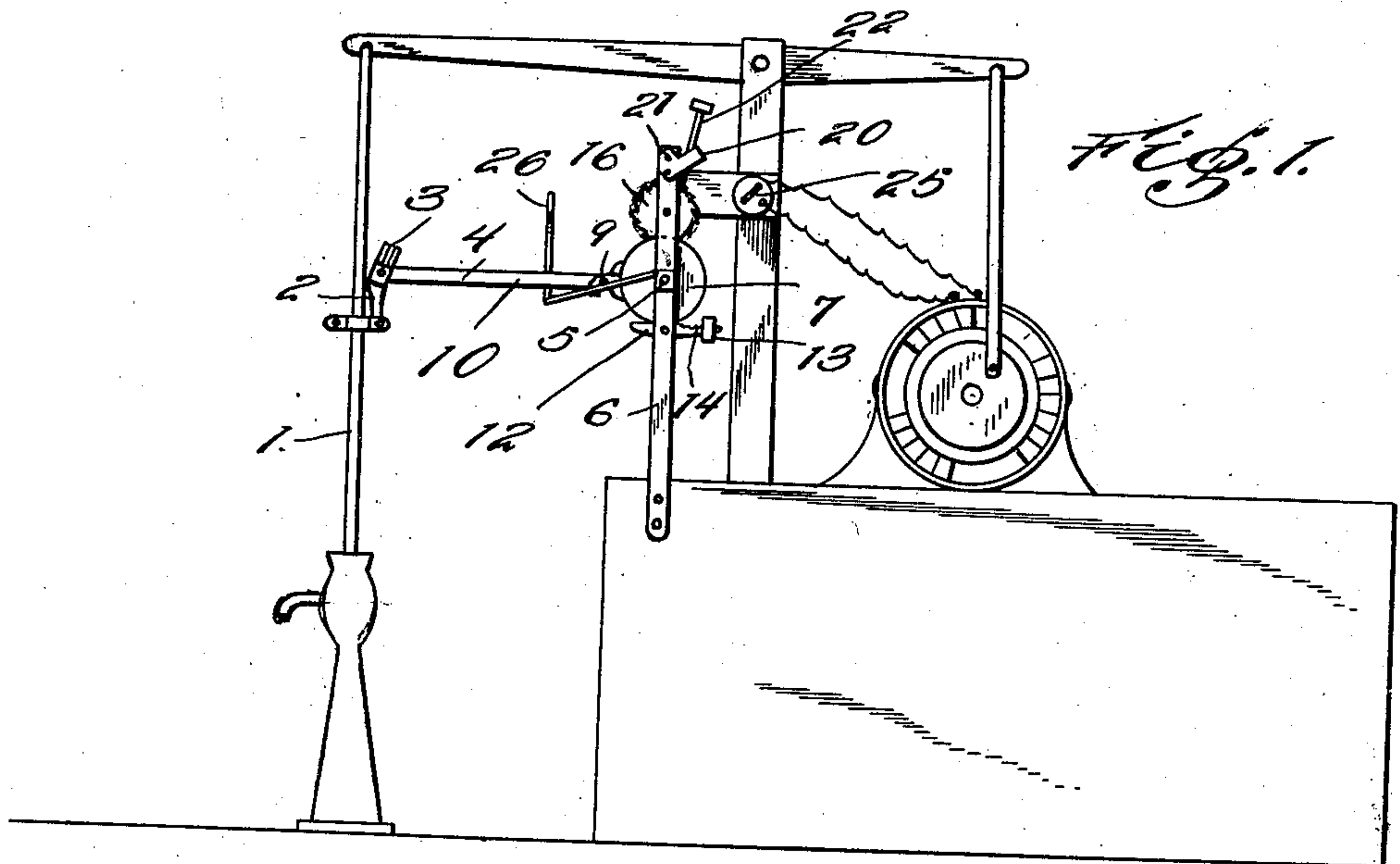


No. 819,287.

PATENTED MAY 1, 1906.

C. KLAUS.
AUTOMATIC BRAKE.
APPLICATION FILED SEPT. 11, 1905.

2 SHEETS—SHEET 1.



Witnesses

G. R. Thomas
H. Welsh

By

Inventor

Caesar Klaus

Swift & Co.

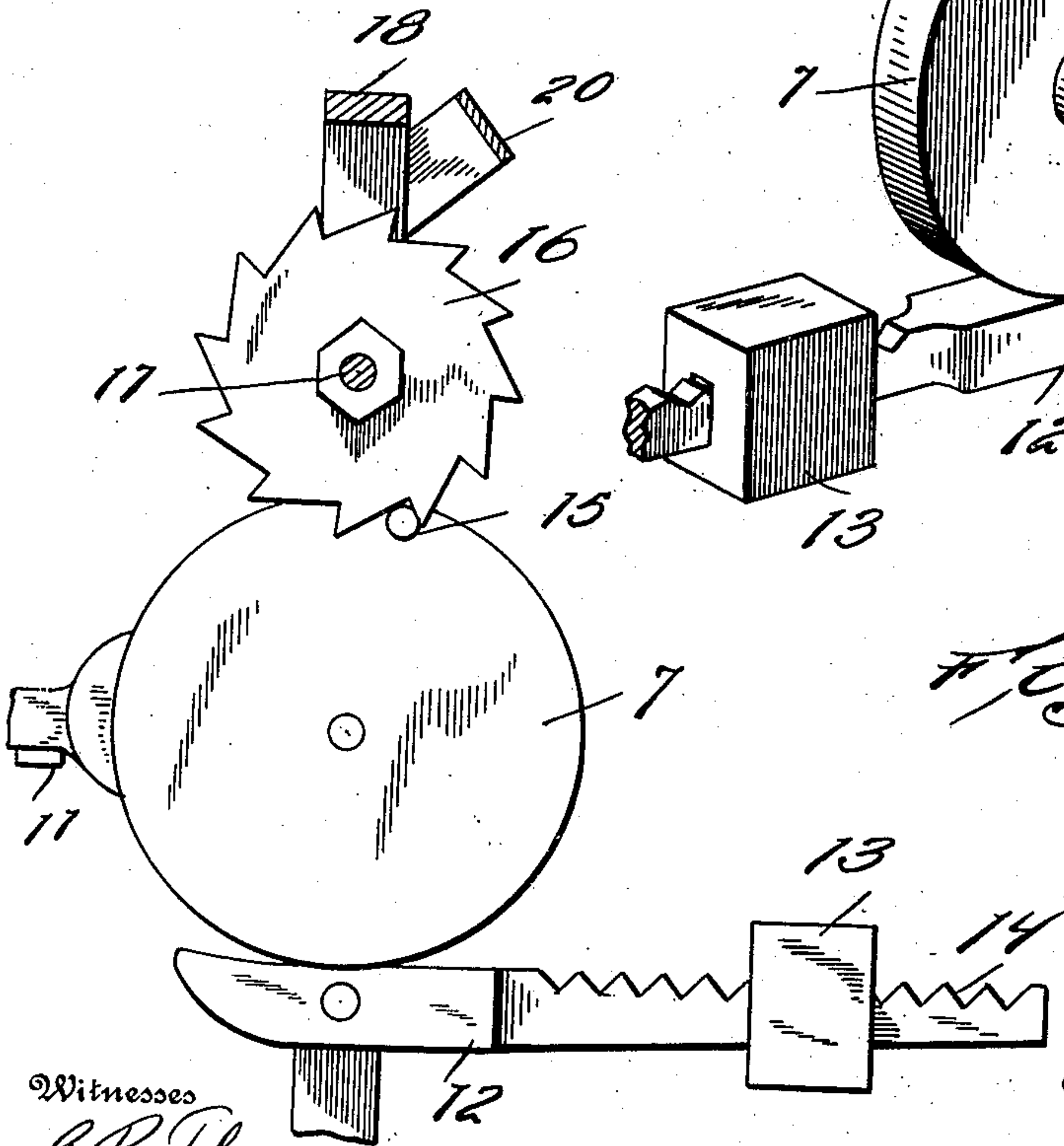
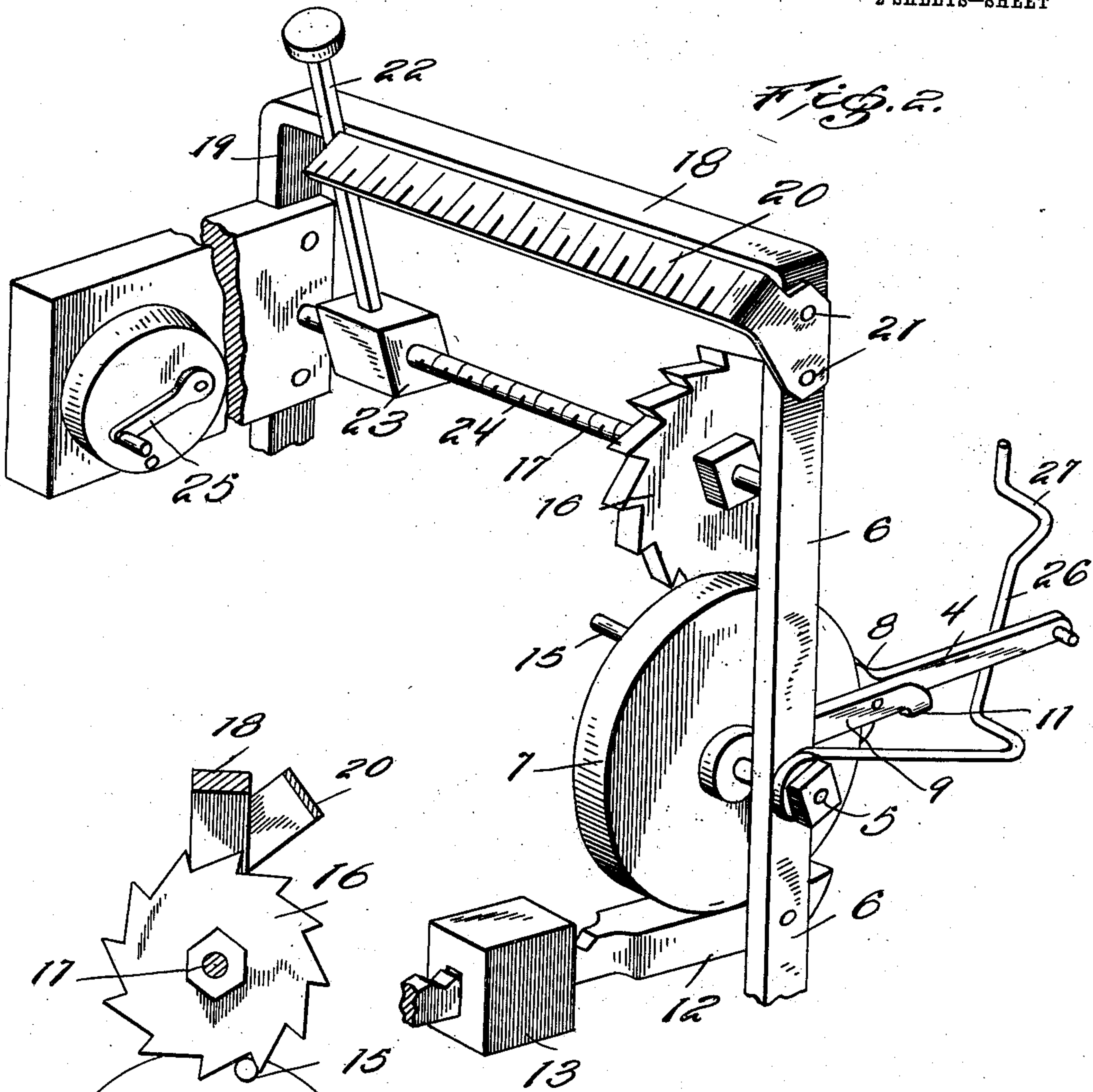
Attorneys

No. 819,287.

PATENTED MAY 1, 1901

C. KLAUS.
AUTOMATIC BRAKE.
APPLICATION FILED SEPT. 11, 1905.

2 SHEETS—SHEET



Witnesses

G. R. Thomas
H. Welsh

ਐਥ

Inventor

Caesar Klaus

Swift & Co.

Attorney

UNITED STATES PATENT OFFICE.

CAESAR KLAUS, OF EUREKA, ILLINOIS.

AUTOMATIC BRAKE.

No. 819,287.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed September 11, 1905. Serial No. 277,976.

To all whom it may concern:

Be it known that I, CAESAR KLAUS, a citizen of the United States, residing at Eureka, in the county of Woodford and State of Illinois, have invented a new and useful Automatic Brake for Engines, Pumps, and the Like; and I 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.

This invention relates to new and useful improvements in automatic stops adapted for use in connection with electrically-driven pumps, engines, and other devices that relate to the same art.

This device is to be attached at any suitable location upon the apparatus upon which the said device is to be used; but, as shown in the accompanying drawings and described hereinafter in the following specification, the said automatic stop is adapted for use in connection with electrically-driven devices, engines, and other devices to which it may be easily adapted for the purpose set forth.

The invention comprises novel means which may be connected practically to the reciprocating rod of a pump driven by any suitable motive power and also having novel means which may fall in the path of an electric switch or means for starting and stopping the motive power which is used in connection therewith.

The invention is a sure stop for the above set forth devices, and it is also comparatively simple in construction and inexpensive to manufacture.

The invention comprises, further, the various objects, advantages, and combination of elements, which will be hereinafter more fully described and set forth and then referred to by the appended claims.

For a full understanding of the details of construction, merits, advantages, and combination of elements reference is to be had to the following description and the accompanying drawings in connection therewith, wherein—

Figure 1 is an elevation of the invention, showing the same attached to a pump. Fig. 2 is an enlarged detail perspective view of the automatic stop. Fig. 3 is an elevation of the invention as applied to an engine. Fig. 4 is a detail view of the ratchet and friction-disk.

Making renewed reference to the drawings,

wherein the corresponding parts throughout the several illustrations are designated by characters, 1 indicates the reciprocating rod of an ordinary pump, which is provided with a pitman 2, one end of which is provided with a slot 3, the outer end thereof being opened and the side walls of said slot being curved, the said slotted end of the pitman being adjustably connected to the operating-lever 4, which is pivotally mounted upon a stub-shaft 5, which is journaled in suitable bearings in a vertical portion 6 of the frame of the apparatus. Also mounted upon the stub-shaft is a friction-disk 7, which is adapted to have a friction-shoe 8 to engage therewith, which is a part of the lever 4, this lever 4 being formed in two parts 9 and 10, the part 9 being mounted on the stub-shaft 5 and the part 10 is pivotally connected to the part 9. The said friction-shoe is made integral with the part 10 and is adapted to engage the friction-disk, as clearly illustrated in the accompanying drawings. The part 9 is provided with a lug 11, which is adapted to cooperate with the part 10 of the lever 4 to limit the movement thereof when the same is in operation. Pivotaly mounted just below the journal of the said disk is a weighted brake 12, which is adapted to engage the periphery of said disk to prevent the retrograde motion of the same. To obtain a greater weighted leverage, the said lever is provided with a movable weight 13, having an arched portion which is provided with a knife-edge for the purpose of engagement with notches 14, formed in the lever 12, for the purpose of holding the weight in the position desired.

Projecting from the flat surface of the disk is a laterally-projecting pin 15, which as the disk rotates will engage one of the teeth of the ratchet 16, which is mounted upon a shaft 17, which is journaled in suitable bearings in the frame of the apparatus.

Extending laterally from the vertical portion 6 is a horizontal portion 18, having a downwardly-projecting portion 19 at the end thereof, which portion forms one of the bearings for the shaft 17. A guide-plate 20 is provided, which extends parallel to the portion 18, the said plate being bolted or otherwise secured, as at 21, to the vertical portion 6, the said plate also being provided with suitable graduations. This plate is adapted to cooperate with a weighted hammer 22, one end of which is screw-threaded into a movable head 23, the bore of which is threaded to en-

gage threads 24 of the shaft 17. The graduations are for the purpose of determining the horizontal travel of the weight-hammer. When the said weighted hammer has reached the end of the guide-plate 20 by the movement of the ratchet 16, which is rotated by the shaft 17, it will fall in the path of an electric switch 25 or in the path of any other device used for starting and stopping motive powers.

The lever 4 is provided with a suitable guide 26, having a suitable catch device 27, which when the part 10 of the lever 4 is disconnected from the pitman 2 and said part 10 resting in the catch device 27 will cause the said automatic stop to be put out of action.

The operation of the form shown in Fig. 3 is as follows: The weighted hammer 22 upon reaching the end of the guide-plate 20 will fall in the path of the handle *a* of the valve *a'*, thus closing the said valve, thereby preventing the steam from entering the steam-chest, which will stop the engine.

From the foregoing it will be clearly observed that a very efficient and inexpensive device is provided whereby pumps which are driven by any suitable motive power may be automatically stopped at a predetermined moment.

Having thus fully described the invention, what is claimed as new is—

1. A device of the class described, comprising a frame, a disk mounted therein, a lever to cooperate therewith, a brake to prevent the retrograde movement of said disk, a shaft mounted within the frame, a ratchet thereon, means carried by the disk for rotating the ratchet and a hammer movably carried by said shaft.
2. A device of the class described comprising a frame, a disk mounted therein, a lever to cooperate therewith, means carried by the lever for turning the disk, a brake therefor to prevent the retrograde movement, a guide-frame for the said lever, a shaft mounted within the frame, a ratchet thereon, means carried by the disk for rotating the ratchet and the shaft therewith, a hammer movably carried by said shaft and a guide therefor.
3. A device of the class described comprising a frame, a disk mounted therein, a lever to cooperate therewith, a brake to prevent

the retrograde movement of said disk, a shaft mounted within the frame, a ratchet thereon, a pin carried by the disk for rotating the ratchet and a hammer to be actuated by the rotary movement of said shaft.

4. An automatic stop comprising a frame, a shaft mounted therein, a hammer movably carried by the shafts, means to guide the hammer in its longitudinal movement of the frame and means to rotate the shaft.

5. An automatic stop comprising a frame, a shaft journaled therein, a ratchet thereon, means for rotating the ratchet and shaft and a hammer movably carried by the shaft.

6. An automatic stop comprising a frame, a shaft journaled therein, a ratchet thereon, means for rotating the ratchet and shaft, means for preventing the retrograde movement of the first-named means and a hammer movably carried by the shaft.

7. An automatic stop comprising a frame, a shaft journaled therein, a ratchet thereon, a disk carried by the frame and having means for rotating the ratchet, a lever having means for imparting an intermittent movement to the disk and a hammer movably carried by the shaft.

8. An automatic stop comprising a frame, a shaft journaled therein, a hammer movably carried thereon, a disk carried by the frame and having means to engage means carried by the shaft to rotate the said shaft and cause the said hammer to move longitudinally of the frame, and a lever having means to impart an intermittent movement to the disk.

9. An automatic stop comprising a frame, a disk having a lateral projecting pin and carried by the frame, a lever having means to impart a rotary intermittent motion to the disk, a catch device for the lever, means to prevent the retrogression of the disk, a shaft journaled in the frame, means carried by the shaft to be engaged by the said pin and a hammer movably carried by the shaft.

In testimony whereof I have hereto affixed my signature in the presence of two witnesses.

CAESAR KLAUS.

Witnesses:

H. B. SCHUMACHER,
SIGMUND SORG.