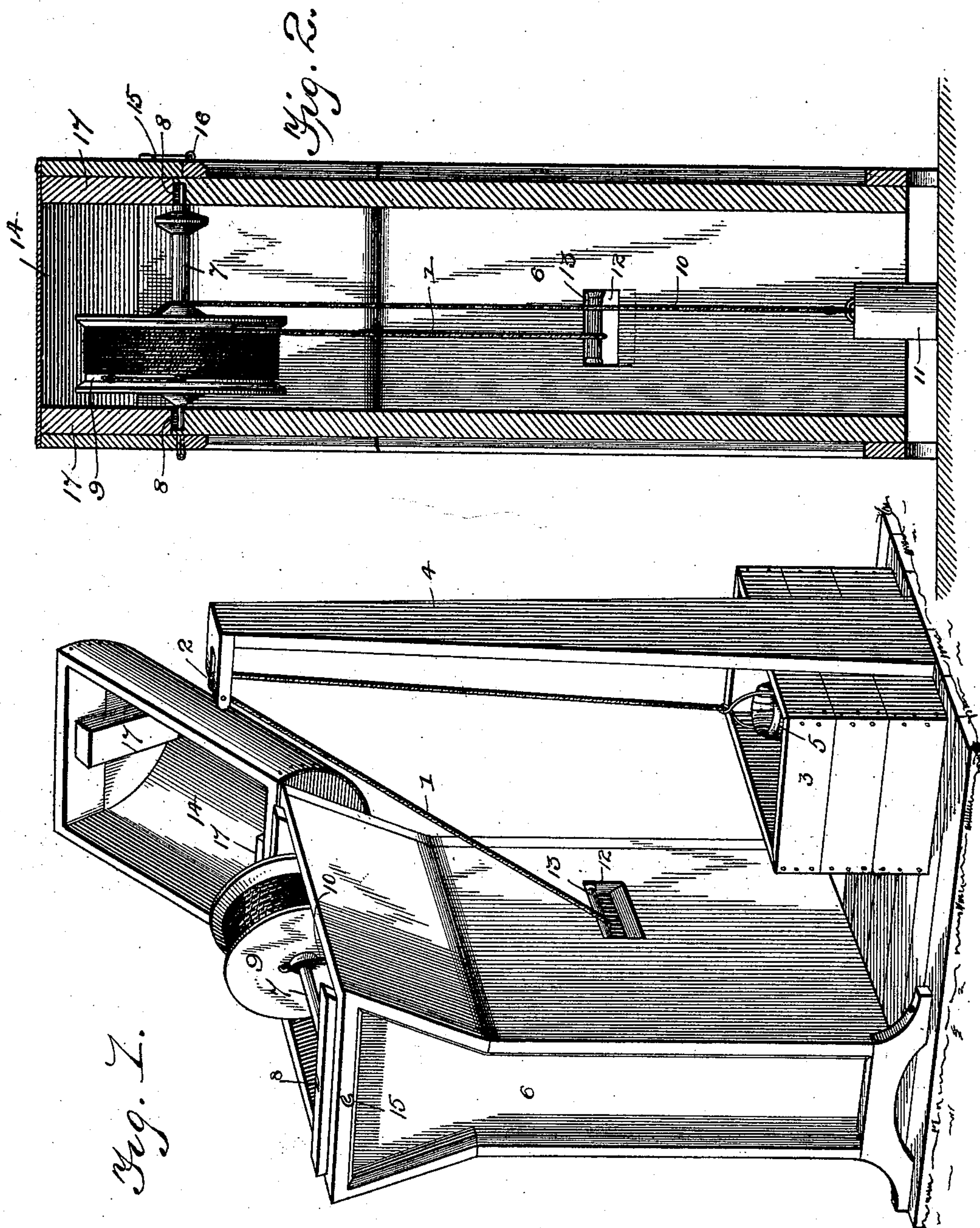


(No Model.)

H. L. McWHIRTER.
WELL ROPE TAKE-UP.

No. 574,258.

Patented Dec. 29, 1896.



Inventor
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Witnesses
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UNITED STATES PATENT OFFICE.

HERSHEL L. MCWHIRTER, OF SOUTH McALESTER, INDIAN TERRITORY.

WELL-ROPE TAKE-UP.

SPECIFICATION forming part of Letters Patent No. 574,258, dated December 29, 1896.

Application filed July 29, 1895. Serial No. 557,458. (No model.)

To all whom it may concern:

Be it known that I, HERSHEL L. MCWHIRTER, a citizen of the United States, residing at South McAlester, Choctaw Nation, Indian Territory, have invented a new and useful Well-Rope Take-Up, of which the following is a specification.

This invention relates to water-elevating appliances for lifting the water from wells.

Usually the well-bucket has been lifted by means of a rope and windlass. This windlass is frequently discarded and dispensed with because of the time required to raise the bucket and because the friction between the journals and the bearings is sufficiently great, if the parts are not kept well lubricated, to increase the load and the effort attendant upon elevating the bucket filled with water. In lieu of the windlass the rope is passed over an elevated pulley and is drawn upon hand over hand, and the loose end falling upon the ground not unfrequently kinks and most generally collects dirt and foreign matter, which soils the hands, the clothing, and fouls the well by being carried therein by the rope when the bucket is lowering.

The object of the present invention is to take up this loose end of the rope and house it, thereby preventing kinking and obviating the collecting of dirt and foreign matter and the attending inconveniences and objectionable features herein noted.

With these and other objects in view which appertain to the nature of the invention the latter consists, essentially, of the novel features which hereinafter will be more particularly set forth and claimed, and which are shown in the accompanying drawings, in which—

Figure 1 is a perspective view showing the application of the invention. Fig. 2 is a vertical section of the housing for the well-rope take-up mechanism, showing the latter in operative relation.

The well-rope 1 passes over a pulley 2, located above the well 3 and mounted upon a post or support 4, and the bucket 5, of any approved pattern, is attached in any convenient manner to the end of the said well-rope. A housing or casing 6 is located in proximate relation to the well, and its position is fixed in any approved manner so as to give stability

thereto. A shaft 7 is journaled at its ends in notches or bearings 8, formed in the upper ends of the side pieces of the housing or casing. A drum 9 is mounted upon the shaft 7, and one end of the well-rope 1 is attached thereto, and in the operation of the invention the loose portion of the said well-rope winds upon and is taken up by the said drum. A counterbalanced cord or rope 10 is made fast at one end to the drum or shaft 7 and winds upon that portion of the shaft to one side of the drum in a reverse direction to the winding of the well-rope upon the drum, so that as the well-rope winds upon the drum the counterbalanced cord or rope unwinds from the shaft, and vice versa. The sole purpose of the counterbalanced cord or rope is to rotate the shaft 7 and the drum 9, mounted thereon, to take up the loose portion of the well-rope when drawing the bucket from the well. A weight 11 is attached to the lower end of the cord or rope 10 and serves to counterbalance the same, and this weight operates in and is housed by the casing 6.

The housing or casing is comparatively tall, so that the drum 9 is about in the plane with the pulley 2, and in order that the well-rope may be within convenient reach it enters the casing or housing through an opening 12, provided near the lower portion thereof. A direction-pulley 13 is located at the upper end of the opening 12, and the well-rope 1 passes thereunder on its way to the drum 9 and the pulley 2. This direction-pulley is flanged at its ends to prevent the slipping of the well-rope therefrom. The upper end of the housing or casing is closed by a cover 14, which is curved or arch-shaped in cross-section, and this cover is hinged at one end to a side of the casing and is held closed by a suitable fastening at its opposite end, which fastening in the present instance is a hook 15 and eye 16. Blocks or cleats 17 are attached to the inner faces of the ends of the cover, and are adapted to extend over the ends or journals of the shaft 7 and hold the latter in the notches or bearings 8. Thus it will be seen that when the cover is open or thrown back access can be had to the shaft and the latter can be removed for any required purpose.

The operation of the invention can be readily understood from the foregoing detailed

description. However, it may be well to mention that the bucket is elevated or raised from the well by pulling upon the well-rope, hand over hand, in the usual way, the loose portion of the said well-rope being wound upon the drum 9 by the unwinding of the counter-balanced cord or rope 10 from the shaft 7.

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

10 An apparatus to be used in connection with a well for automatically taking up the slack in the well-rope as the latter is drawn from the well hand over hand, the same consisting of an elevated pulley, a casing adjacent to
15 the well and open at its upper end, and having bearing-notches in its sides at the open end, and having an opening in the wall facing the well provided at its top edge with a direction-pulley, a shaft journaled in the said
20 bearing-notches, a drum mounted upon the

shaft so as to revolve therewith, a cover for the casing, blocks secured to the ends of the cover to close the said bearing-notches and retain the shaft therein, a well-rope having a bucket at one end and having its other end 25 passing through the aforesaid opening of the casing and under the direction-pulley and adapted to wind upon the said drum, a cord adapted to wind upon the shaft in an inverse direction to the winding of the well-rope upon 30 the drum, and a weight at the lower end of the cord for automatically taking up and housing the well-rope, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 35 the presence of two witnesses.

HERSHEL L. MCWHIRTER.

Witnesses:

THOS. G. HENDRICKS,

CHAS. BAIRD.