

No. 671,751.

Patented Apr. 9, 1901.

C. L. BLOOM.

BAND WHEEL FOR WELL DIGGING APPARATUS.

(Application filed June 19, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 2.

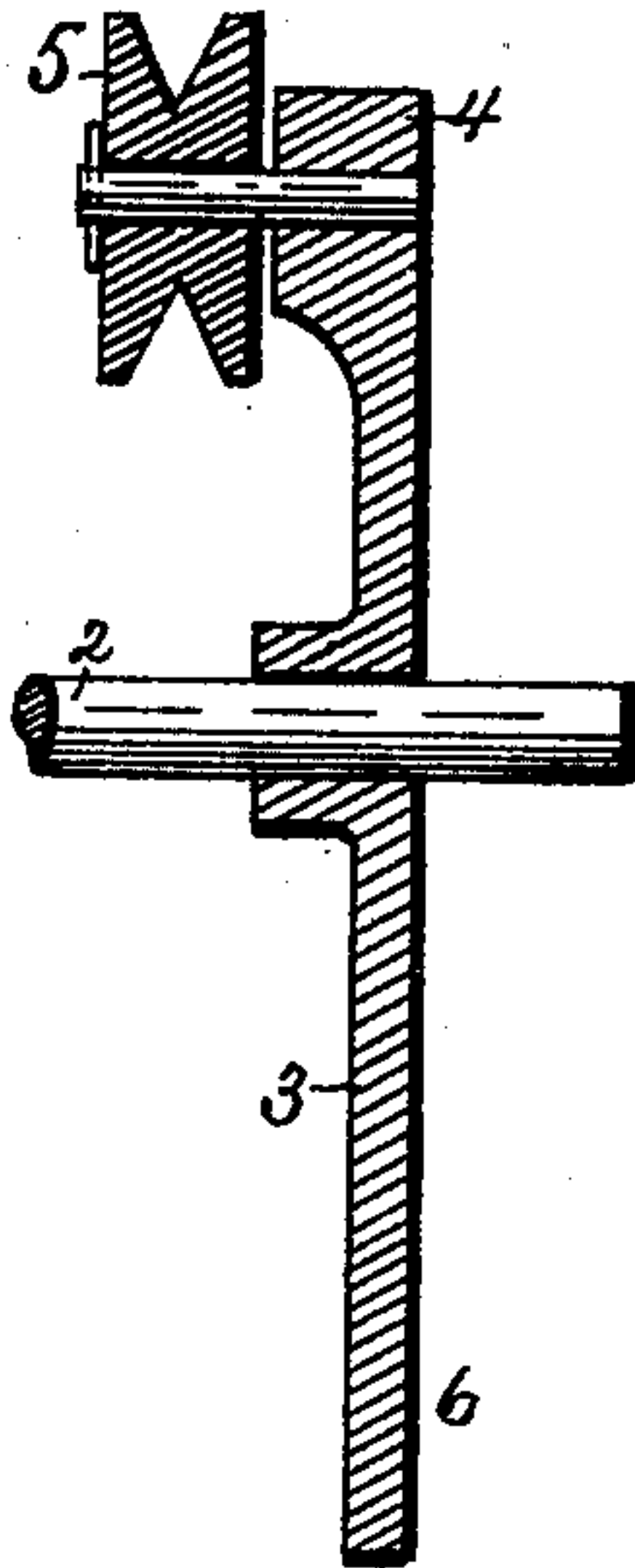


Fig. 3.

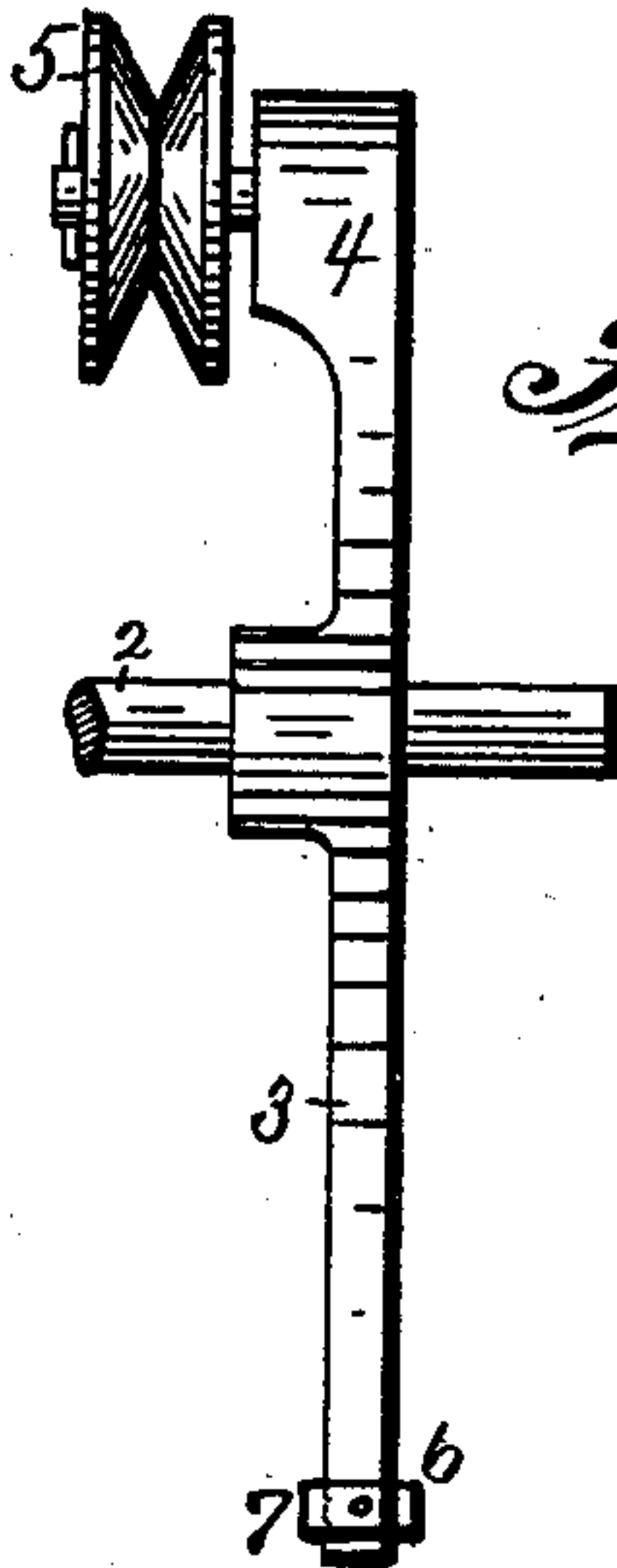


Fig. 1.

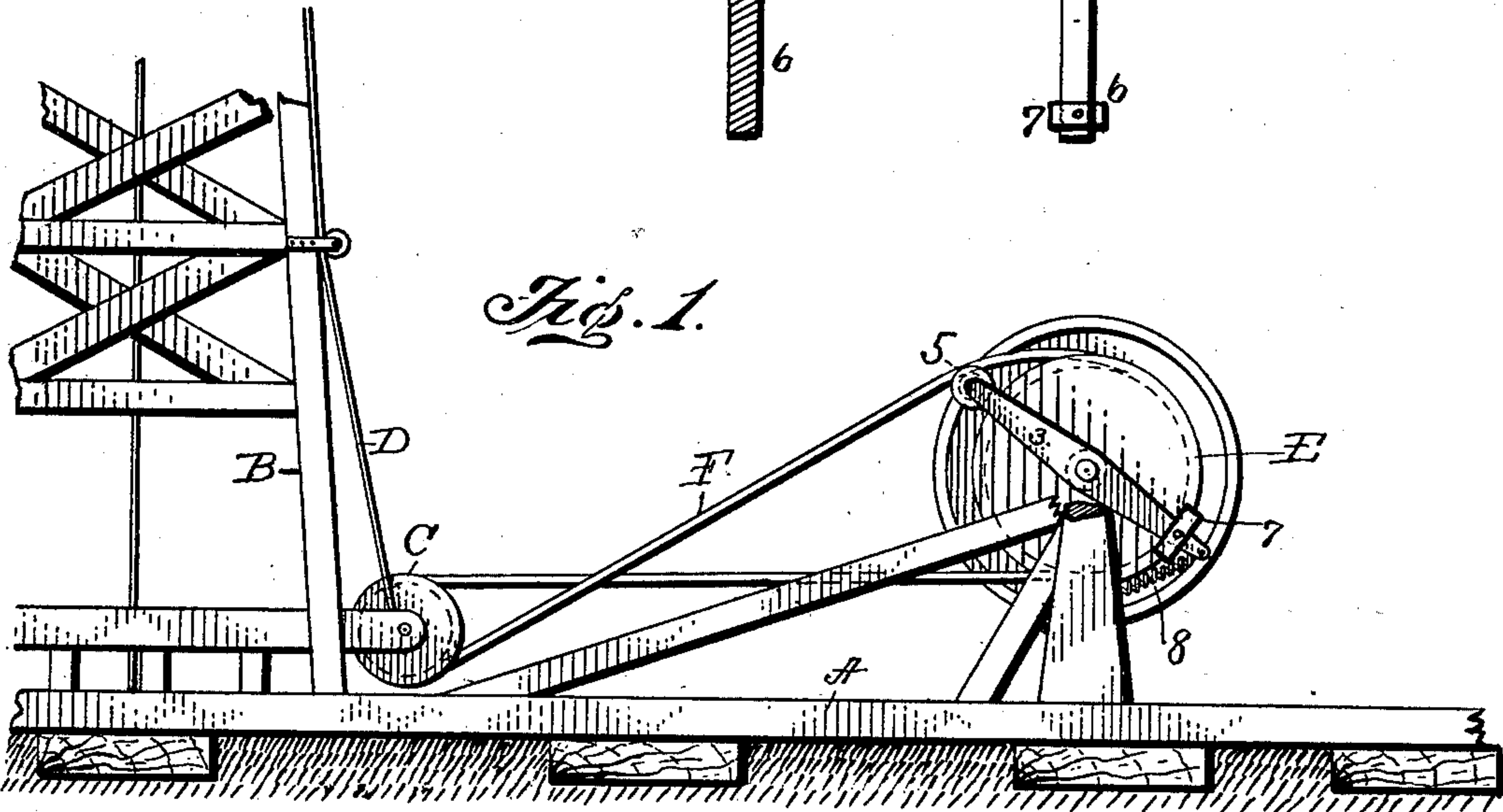
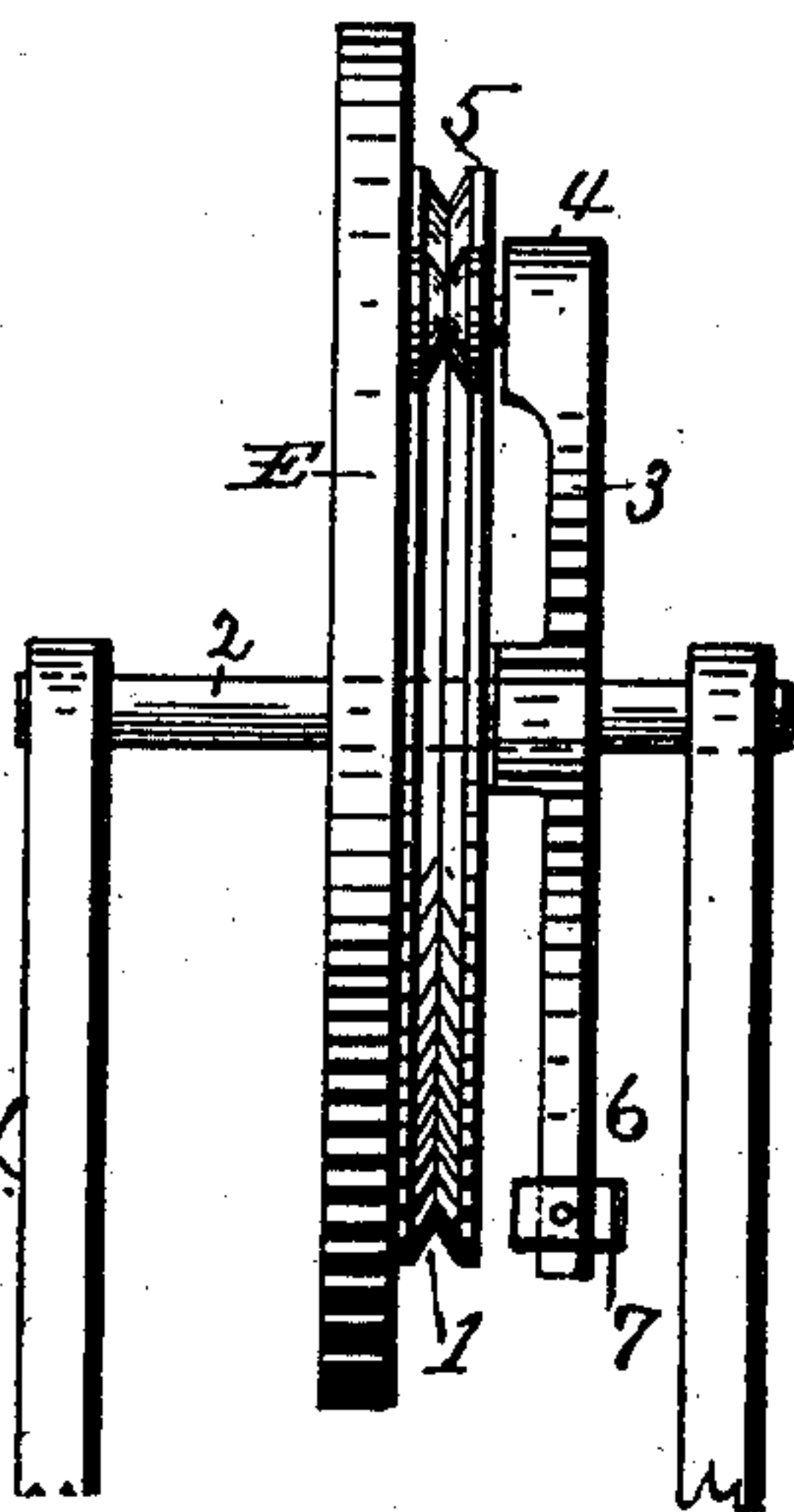


Fig. 4.



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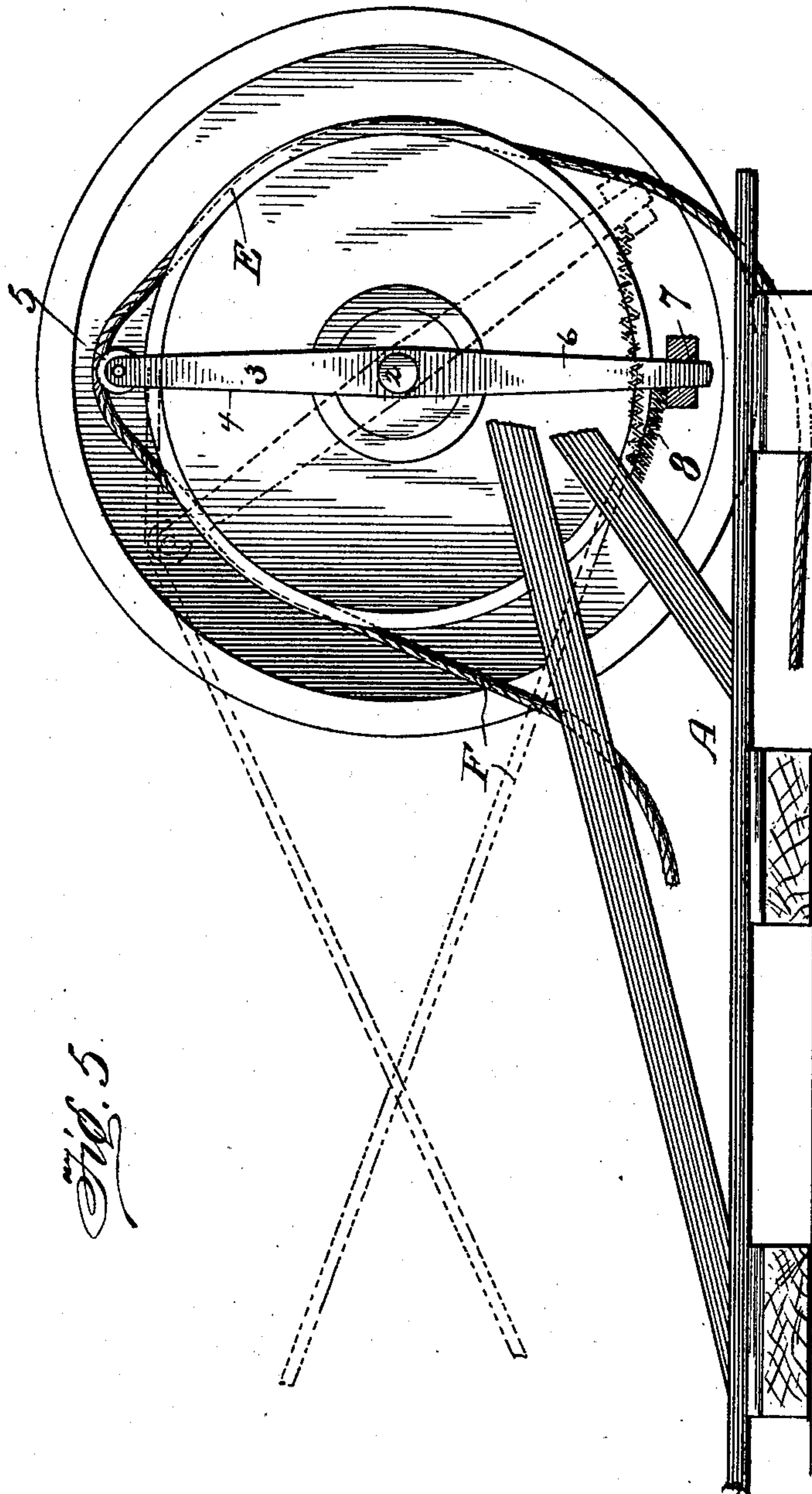


Fig. 5.

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UNITED STATES PATENT OFFICE.

CAMDON L. BLOOM, OF INDEPENDENCE, KANSAS.

BAND-WHEEL FOR WELL-DIGGING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 671,751, dated April 9, 1901.

Application filed June 19, 1900. Serial No. 20,828. (No model.)

To all whom it may concern:

Be it known that I, CAMDON L. BLOOM, a citizen of the United States, residing at Independence, in the county of Montgomery and State of Kansas, have invented certain new and useful Improvements in Band-Wheels for Well-Digging Apparatus; 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.

My invention has relation to improvements in band-wheels for well-digging apparatus, and especially relates to improved means for carrying the "bull-rope" free from the power-pulley when not in use in drawing the tools from the well or hole. It is well known in the trade that when the wheel is not in use for the purpose of pulling the tools from the well the bull-rope is slacked up on the pulley, so as to permit the pulley to rotate without turning the mechanism connected with it. The band-wheel, however, turns with the rope about it, thus wearing the rope out much sooner than if it be held entirely removed and free from its seat in the pulley. It is the purpose to provide a simple and efficient means for throwing the rope off the pulley and to hold it in such relation free from operation until it is desired to again place it in operative position on the pulley.

My invention consists in the novel construction and arrangement of parts and their combination, as will be hereinafter fully described, and particularly pointed out in the claims.

I accomplish the objects of the invention by the means or mechanism illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of a portion of a well-digging machine, showing my improved rope-holder operatively applied to the band-wheel and rope. Fig. 2 is a detail vertical section of the rope-holding lever, a portion of the pulley-shaft, and rope-holding sheave. Fig. 3 is a detail view of the parts shown in Fig. 2. Fig. 4 is a detail view, in front elevation, of the band-wheel and rope-holding lever with the sheave journaled thereon. Fig. 5 is a side elevation showing the position of the rope and lever when the rope is carried by the sheave and lever, the original position

of the rope when in operative relation to the pulley being indicated in dotted lines.

Referring to the drawings, A designates the foundation of the machine; B, the tower; C, the tool-rope reel; D, the tool-rope; E, the band-wheel, and F the bull-rope. All these elements or parts are of any of the usual construction and arrangement common to this class of machines.

The band-wheel E consists of a substantial pulley having a circumferential groove 1 therein, in which the bull-rope F is carried, the pulley E being mounted on a shaft 2, having connection with the engine or power which rotates the pulley and communicates the required motion to the associated mechanism. On the shaft 2 is loosely mounted a lever 3, extended radially in both directions, the upper arm 4 of which is of greater length than the radius of the band-wheel, and on a lateral projection provided at the upper end of the lever is journaled a sheave 5, which overhangs the band-wheel and the groove of which engages the bull-rope, substantially as shown in the drawings. The other arm 6 of the lever 3 extends a proper length and has placed thereon a counterweight 7 to counterbalance the sheave 5 on the other end of the lever. To hold the lever in resilient relation to the rope, a retractile spring 8 is utilized, having one end secured to the lower portion or end of the lever and its other end secured to some convenient point on the frame.

The operation is as follows: When the band-wheel is in operation and the rope active, the lever and sheave assume the position shown in Fig. 1 of the drawings, in which position the sheave acts in the nature of a tightener for the rope. When it is desired to render the bull-rope inactive, the rope is thrown from the bull-wheel and carried or held by the sheave 5, as shown in Fig. 5 of the drawings, until it is required to withdraw the tools, when the rope is again adjusted on the bull-wheel and becomes active in operation, and no attention is required by the mechanism on the band-wheel, as it works automatically.

Having thus described the invention, what I claim is—

1. In a device of the kind described, the combination with the band-wheel, and the

bull-rope thereon, of a lever loosely fulcrumed
on the shaft of the band-wheel and extending
radially in both directions from the shaft, an
overhanging sheave journaled on the upper
5 end of the lever, and resilient means at the
lower end of the lever to hold it in position,
substantially as described.

2. The combination with the band-wheel
and the bull-rope, of a lever fulcrumed on the
10 shaft of the band-wheel and extending radi-
ally in both directions having its upper end
extended laterally beyond the edge of the
wheel, a sheave journaled on the lateral pro-
jection at the upper end of the lever to en-

gage under the bull-rope, and a spring con- 15
nected to the lower end of the lever, and its
other end fixed to a point on the frame and
adapted to hold the lever in resilient engage-
ment with the rope whereby when the rope
is off the pulley it will be held by the sheave, 20
substantially as described.

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

CAMDON L. BLOOM.

Witnesses:

O. J. MOON,

J. F. ANDERSON.