

No. 771,036.

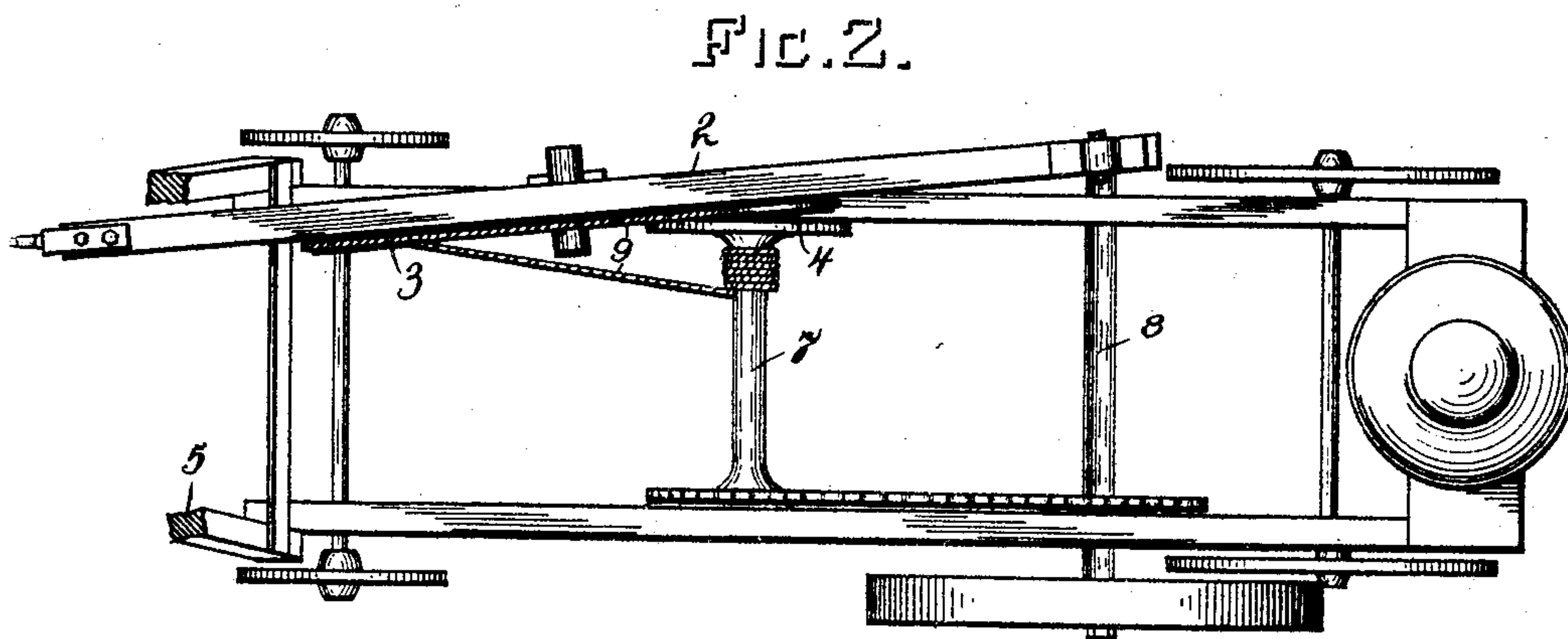
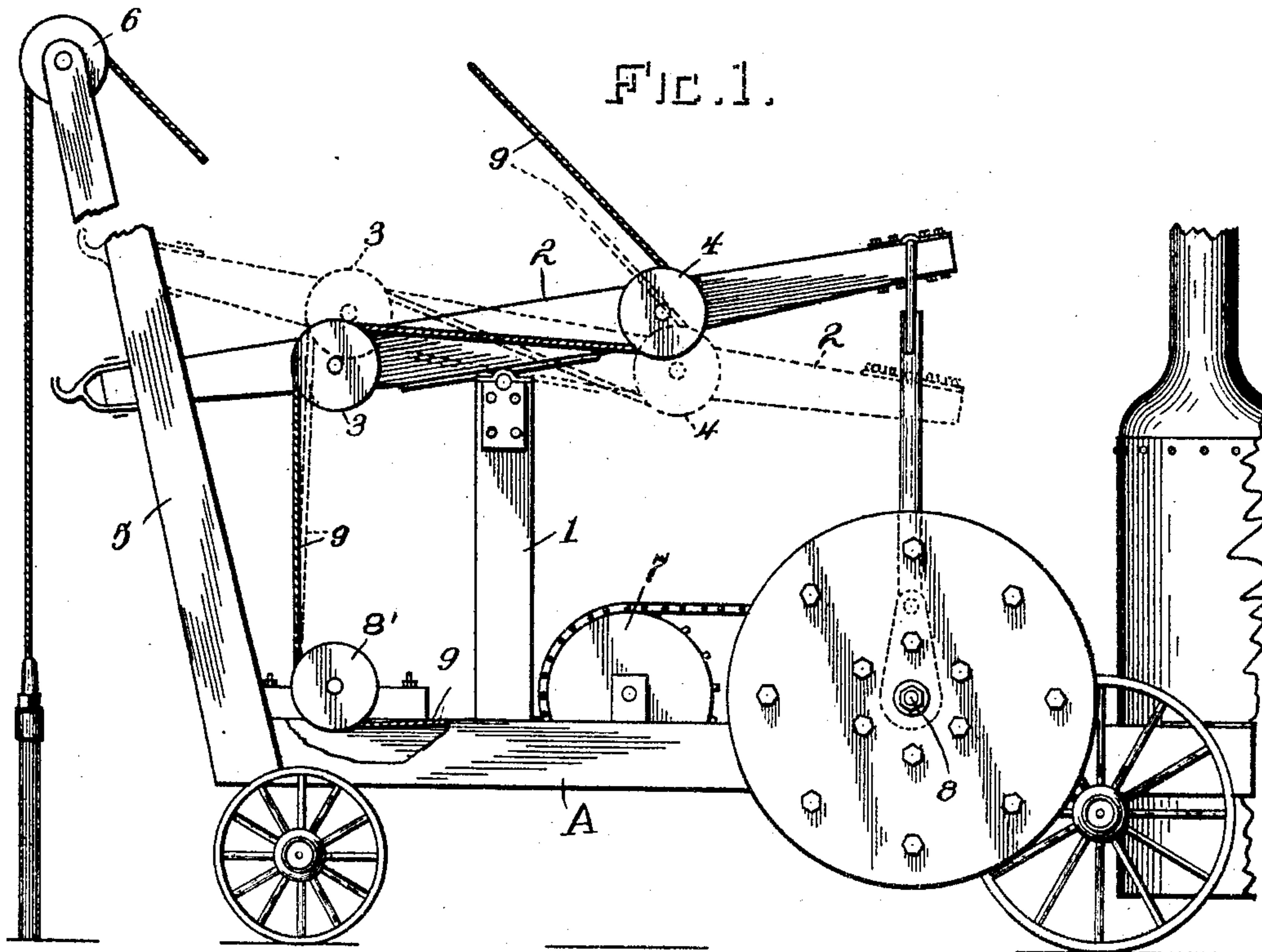
PATENTED SEPT. 27, 1904.

W. L. BARTON.

SPUDDING ATTACHMENT FOR DRILLING MACHINES.

APPLICATION FILED FEB. 2, 1904.

NO MODEL.



Witnesses
Milton Lenoir,
Walter T. Estabrook

Inventor
William L. Barton
by *Thos. G. & W. B. Smith*
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM L. BARTON, OF CARBONDALE, PENNSYLVANIA.

SPUDDING ATTACHMENT FOR DRILLING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 771,036, dated September 27, 1904.

Application filed February 2, 1904. Serial No. 191,736. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. BARTON, a citizen of the United States, and a resident of Carbondale, in the county of Lackawanna and State of Pennsylvania, have invented a new and useful Improvement in Spudding Attachments for Drilling-Machines, of which the following is a specification.

My invention relates to an improvement in drill-machines, and more particularly to a spudding attachment therefor; and to this end my invention consists in a novel method of applying the rope or cable to the working parts of the machine in combination with auxiliary devices carried by the machine, by means of which I am able to operate the walking-beam in the same manner as though I were drilling with a temper-screw—that is, the downward movement of the walking-beam is the operative movement. Furthermore, I can drill from one hundred to one hundred and fifty feet without removing the rope from the sheaves, the walking-beam may be stopped, and the tool withdrawn from the well almost instantaneously without causing the operator to move from one position. It will thus be seen that the action of the machine is under instant control.

In the accompanying drawings, Figure 1 is a view in side elevation of my improved spudding device; and Fig. 2 is a top plan view thereof, parts broken away to better disclose the invention.

A indicates the frame of the machine mounted upon suitable wheels. A post or standard 1 is supported upon the frame, to the upper end of which post is pivotally secured the walking-beam 2, provided with pulleys or sheaves 3 4, one located on either side of the fulcrum of the walking-beam and preferably on the same side of the beam, as shown. These pulleys are rotatably mounted directly on the beam and are carried therewith during its oscillatory movements. The frame is provided with the usual derrick 5, having a crown-sheave 6 located thereon. Journaled on the frame is the winding-drum 7, which drum is operated by means of the drive-shaft 8, driven by any suitable means. (Not shown.) The walking-beam is operated by means of a con-

nection extending between the drive-shaft and the rear end of the beam in the manner shown, the forward end of the beam being provided with a hook or other suitable means for the support of a temper-screw. (Not shown.) Now, a pushing stroke is much weaker than a pulling stroke of the pitman and tends to strain the machine, in view of which I provide an additional stationary sheave 8', rotatably mounted on the frame at a point opposite the drum and beneath the forward end of the walking-beam, and the rope 9 is then led from the winding-drum to and beneath sheave 8, thence upward and over sheave 3 near the free end of the walking-beam, thence beneath the sheave 4 on the opposite side of the fulcrum of the walking-beam, thence upward and over the crown-sheave, and thence down to the tool. With this arrangement of parts the downward movement of the free end of the beam caused by the upward push of the operative mechanism at the rear end of the beam causes the rope to slacken and permit the tool to descend, the upward push being aided by the pulling weight of the tool, so that a much better stroke is obtained with a minimum of exertion.

It is evident that changes might be made in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not desire to limit myself to the exact structure herein set forth; but,

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

1. In a drilling-machine, the combination with a suitable support, a walking-beam, sheaves mounted directly on the walking-beam and moving therewith, a winding-drum and a derrick provided with a crown-sheave, of a stationary sheave, a rope leading from the winding-drum to the stationary sheave thence to the sheaves on the walking-beam and thence over the crown-sheave and means for winding or unwinding the rope.

2. The combination, in a drilling-machine, with a walking-beam, sheaves located on either side of the fulcrum of the beam and carried by the beam, a crown-sheave and a winding-drum, of a stationary sheave and a rope ex-

tending from the drum to and beneath the stationary sheave, up and over one of the sheaves on the walking-beam, across and under the opposite sheave on the walking-beam
5 and thence up and over the crown-sheave and means for rotating the drum.

3. In a drilling-machine, the combination with a walking-beam, a plurality of sheaves mounted directly on the walking-beam and
10 carried thereby, the sheaves located on either side of the fulcrum of the walking-beam, a crown-sheave and a winding-drum, the latter located at the rear end of the walking-beam, of a fixed sheave located opposite the wind-
15 ing-drum and at the forward end of the beam, a rope passing from the winding-drum to and beneath the fixed sheave, up and over the sheave mounted on the forward portion of the walking-beam, backward and beneath the

sheave mounted on the rear portion of the 20 walking-beam and thence up and over the crown-sheave.

4. In a drilling-machine, the combination with a crown-sheave, a winding-drum, a walk-
ing-beam, sheaves rotatably mounted on the 25 walking-beam on either side of the fulcrum thereof, and means for operating the walking-beam, of a fixed sheave, a rope passing from the winding-drum to and beneath the fixed
sheave thence to the sheaves on the walking- 30 beam and thence to and over the crown-sheave.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM L. BARTON.

Witnesses:

J. F. REYNOLDS,

JOHN B. SHANNON.