

S. Rider,

Derrick.

No. 106408.

Patented Aug. 16. 1870.

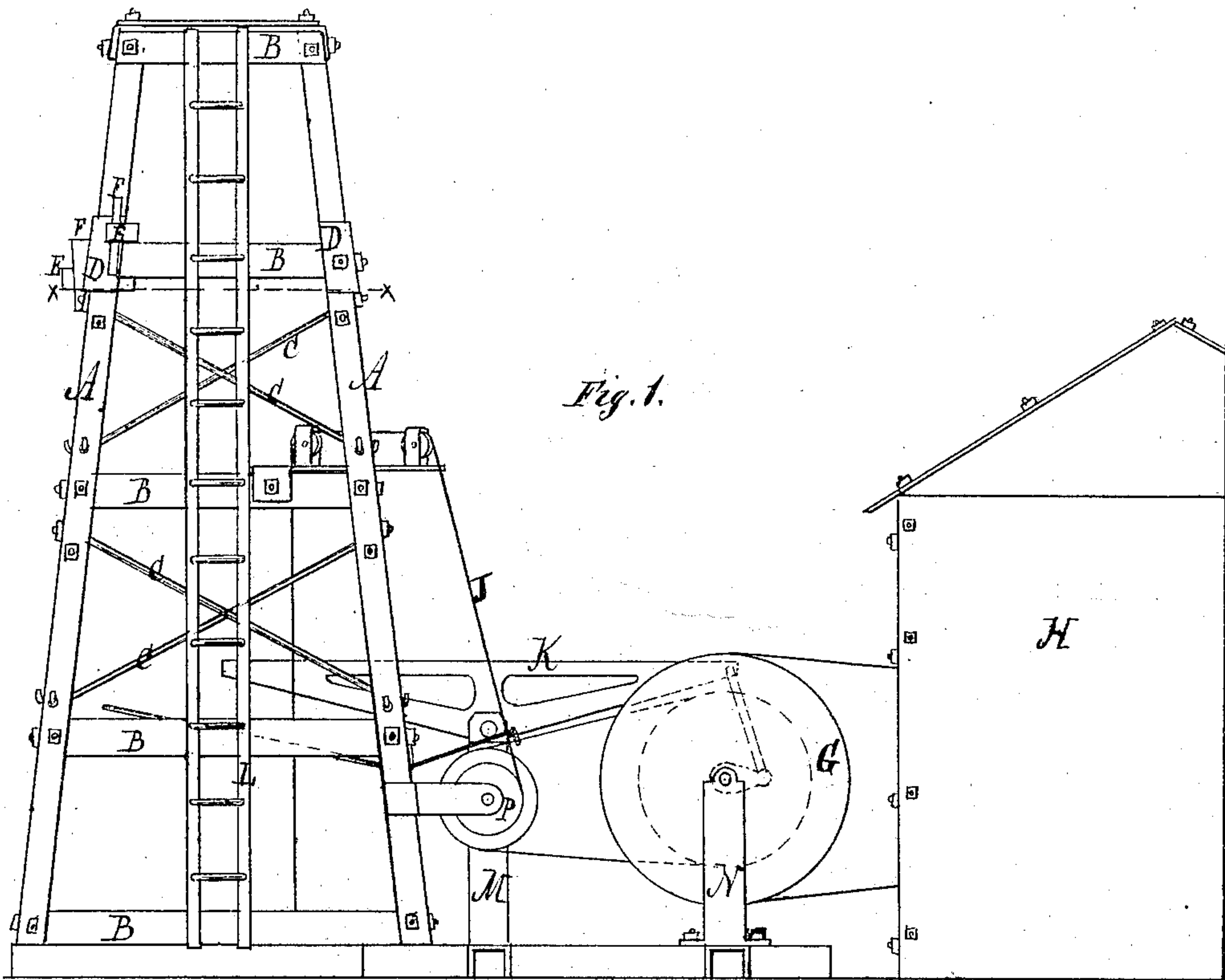


Fig. 1.

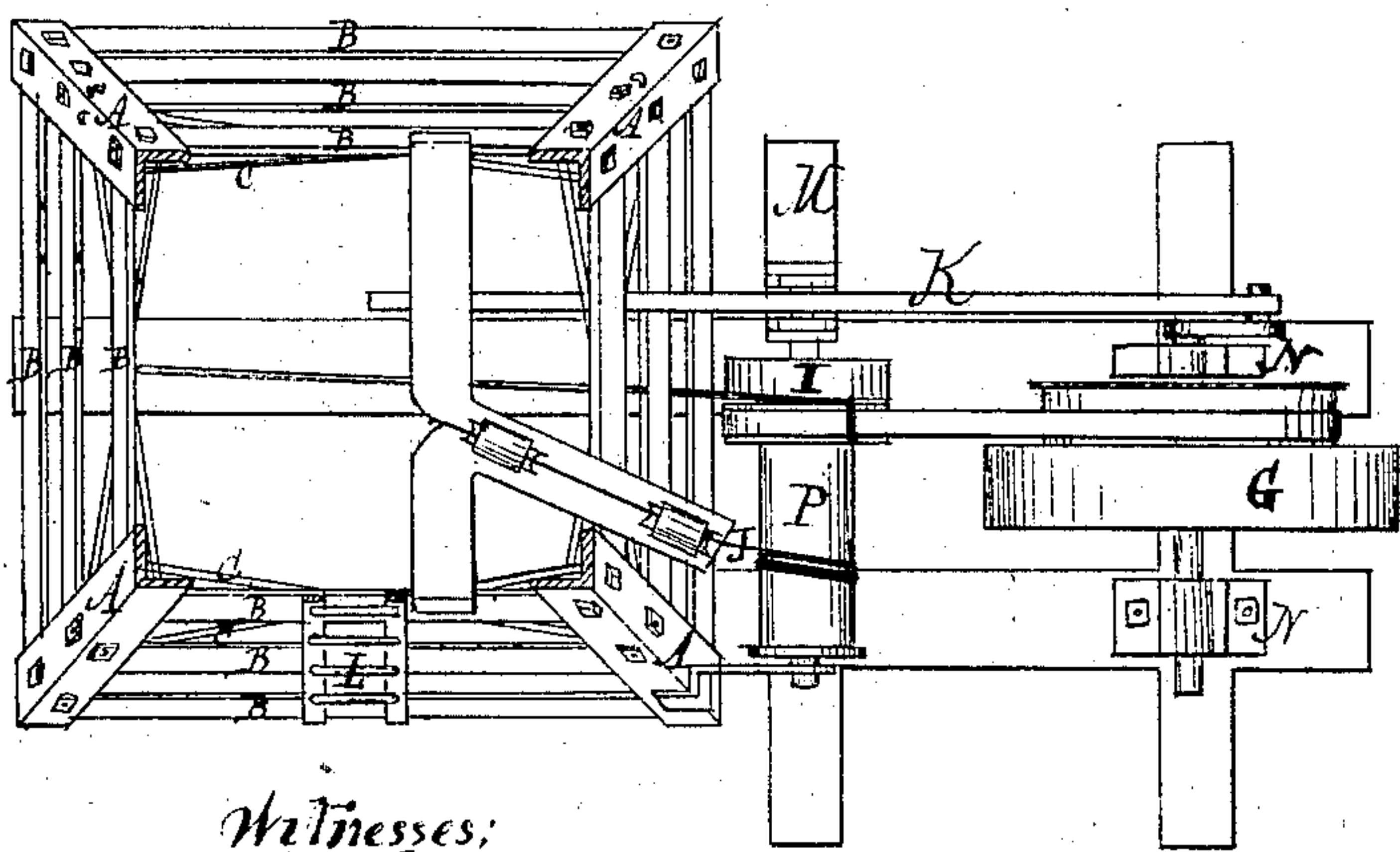


Fig. 2.

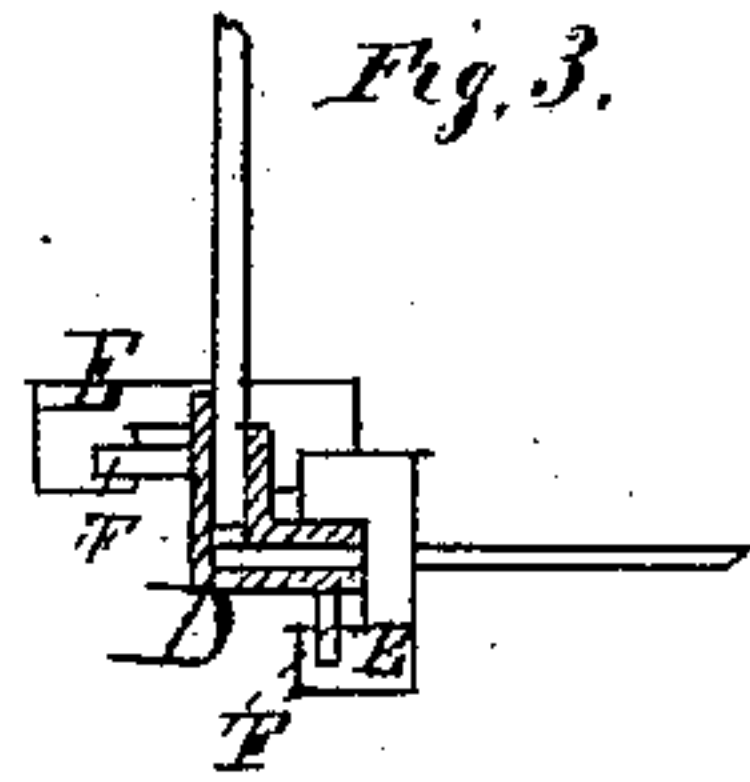


Fig. 3.

Witnesses:
E. R. Brown.
C. C. Theaker

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Inventor,
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United States Patent Office.

SAMUEL RIDER, OF OIL CITY, PENNSYLVANIA, ASSIGNOR TO HIMSELF, SAMUEL R. GRIFFITH, ALBERT R. GRIFFITH, AND ANDREW W. COX, OF SAME PLACE.

Letters Patent No. 106,408, dated August 16, 1870.

IMPROVEMENT IN PORTABLE IRON DERRICK.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, SAMUEL RIDER, of Oil City, in the county of Venango and State of Pennsylvania, have invented a new and useful Portable Iron Derrick for Petroleum-Wells, Salt-Wells, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, sufficient to enable those skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a side elevation of my improvement.

Figure 2 is a top view, partly in section.

Figure 3 is a sectional view, hereinafter more particularly referred to.

In drilling oil, salt, and other wells, the derrick and appendages are usually made of wood, fastened with nails, and, if sufficiently strong, they are necessarily clumsy and unwieldy, rendering it impracticable to take them apart and transport them from place to place; they are also easily destroyed by fire in cases of spontaneous combustion and conflagration which frequently occur in oil-wells.

The object of my invention is to obviate these difficulties by constructing a portable, durable, and fire-proof derrick and its appendages, for oil and salt-wells and similar purposes; and

It consists in the application of iron to the construction of a derrick, working-beam, samson-post, jack-posts, pump-rig, engine-house, &c.; also in the peculiar construction and arrangement of the parts.

The derrick is made of any suitable shape and dimensions, but I prefer to make it of tapering form, as shown in the drawing.

It is constructed of strips of plate-iron A, each strip bent longitudinally, so as to form two sides of a quadrangle, connected at top and bottom and intermediate positions by braces B of plate-iron, secured by bolts, rivets, or screws, and strengthened by diagonal braces C of rod-iron, secured in any suitable manner.

When desired to increase the height of the derrick, additional sections may be added to the main portion, and secured by means of plates D, corresponding with the form of the strips A, and fastened by means of bolts or rivets, or by means of clamps E and keys F, as shown in figs. 1 and 3.

The working-beam K, samson-post M, jack-posts N, and pump-rig P are constructed of iron, or in part of either cast or plate-iron.

The engine-house H is built of plate-iron, the plates lapping each other and secured by bolts, rivets, or screws, so as to be easily taken down, transported, and put together.

The pump-rig is connected by a belt with the shaft of the main pulley G, and is provided with a loose pulley, I, to facilitate the winding and unwinding of the rope or chain J, connected with the sand-pump, which is accomplished by means of a clutch or other suitable device.

The derrick is provided with a ladder L, the rails consisting of strips of plate-iron, and the rungs of rod-iron, secured by nuts and screw-threads, so as to be easily taken apart and replaced.

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

1. The portable derrick herein described, when constructed of strips of plate-iron A, bent longitudinally as shown, and connected by braces B of plate-iron, and strengthened by diagonal braces C of rod-iron, and when made in sections and secured by the angular plates D, clamps E, and keys F, all as shown and described, for the purpose specified.

2. The working-beam K, samson-post M, jack-posts N, and pump-rig P, in combination with the portable iron derrick, constructed and arranged as shown and described.

SAMUEL RIDER.

Witnesses:

B. POMER,

FRED. P. JAMES.