

J. H. Ball,

Circular Saw Mill.

No. 86,271.

Patented Jan. 26, 1869.

Fig. 1

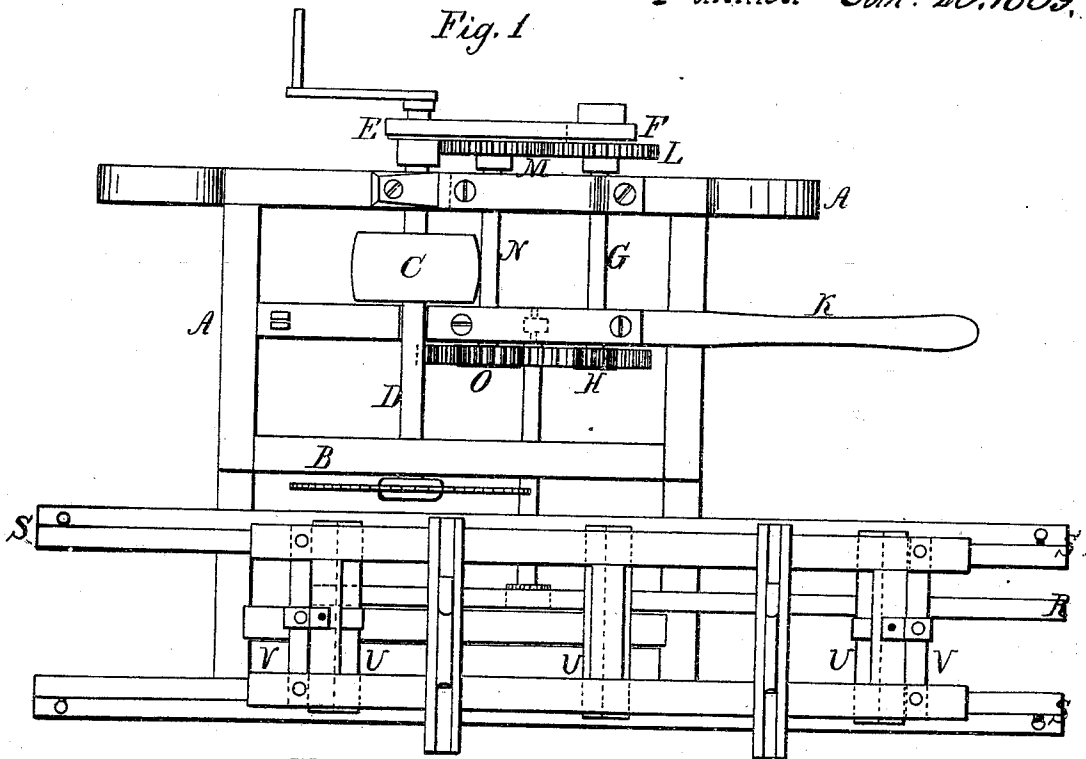


Fig. 2

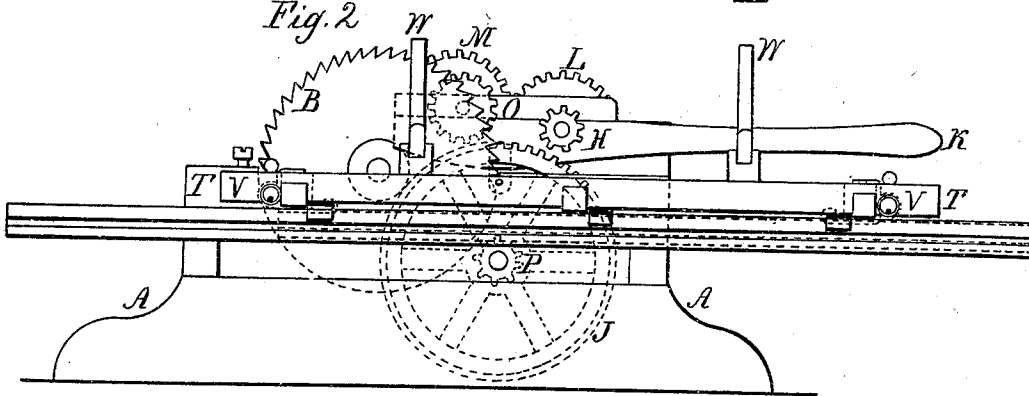
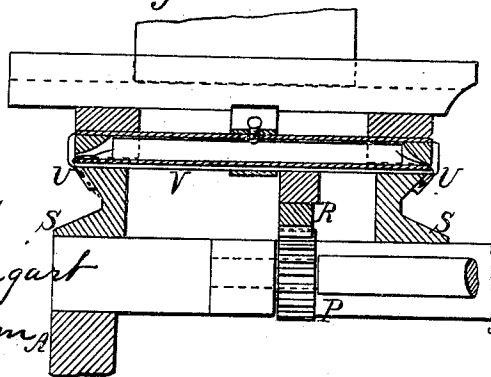


Fig. 3



Witnesses
Franklin Reigart
Elias Bascom

Inventor
J. H. Ball



D. H. BALL, OF ENTERPRISE, PENNSYLVANIA.

Letters Patent No. 86,271, dated January 26, 1869; antedated January 22, 1869.

IMPROVEMENT IN CIRCULAR-SAW MILLS.

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, D. H. BALL, of Enterprise, county of Cameron, and State of Pennsylvania, have invented new and useful Improvements in Circular-Saw Mills; and I hereby declare the following to be an exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 represents a top view of the circular-saw mill.

Figure 2 represents a side elevation of the same.

Figure 3 represents a sectional view of the end of the carriage, with its oil-box, and the rails upon which it operates.

The nature of my invention consists in the shape and construction of the rails, and the arrangement and combination of the movable carriage as it operates backward and forward on the rails, with its self-oiling cylinder; also, the arrangement of the gearing-devices, for reversing the motion of the carriage.

A represents the frame that supports the devices of the saw-mill.

B is the upright circular saw, with the main band-wheel C upon the same shaft D.

On the end of the shaft D is a pulley, E, connected by a belt with pulley F on the end of an adjustable shaft, G.

On the opposite end of the shaft G is a pinion, H, that gears into the main toothed wheel J, whenever the pinion H is required to be adjusted by the lever K.

The cog-wheel L on the shaft G, gears into another cog-wheel, M, on another adjustable shaft, N.

On the opposite end of shaft N, is a toothed wheel, O, that also gears into the main toothed wheel J.

Both of the adjustable shafts G and N revolve in one end of lever K, so that, by raising or lowering the handle of lever K, the toothed wheels H and O are alternately geared into the top of the toothed wheel J, by means of which the pinion P, that gears into the rack R of the carriage, reverses the motion of the carriage, either backward or forward.

The rails S S, upon which the carriage operates, have an angular groove on their outer side, and straight on the inside, something similar in shape to the half of a T-rail.

On the lower side of the carriage-frame T, are three or more metallic cross-braces, U, the ends of which are bent down at an incline, to fit into the grooves of the rails S S, making a perfect guide for the backward-and-forward motion of the carriage.

Extending across each end of the carriage are oiling-cylinders V V, with an aperture for filling in the oil at the centre, and small apertures near each end of the cylinders, on their under sides, over the centre or top of each rail, continually supplying the rail with oil.

W W are the sliding frames on top of the carriage, by which the log being sawed is regulated in its proper position to the saw.

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

The arrangement of the braces U, self-oiling cylinder V, and grooved rails S S, when constructed and operating as herein set forth.

D. H. BALL.

Witnesses:

J. FRANKLIN REIGART,
EDM. F. BROWN.