(Model.)

W. J. RAY.

Clutch.

No. 228,276. Patented June 1, 1880.

Fig. 1.

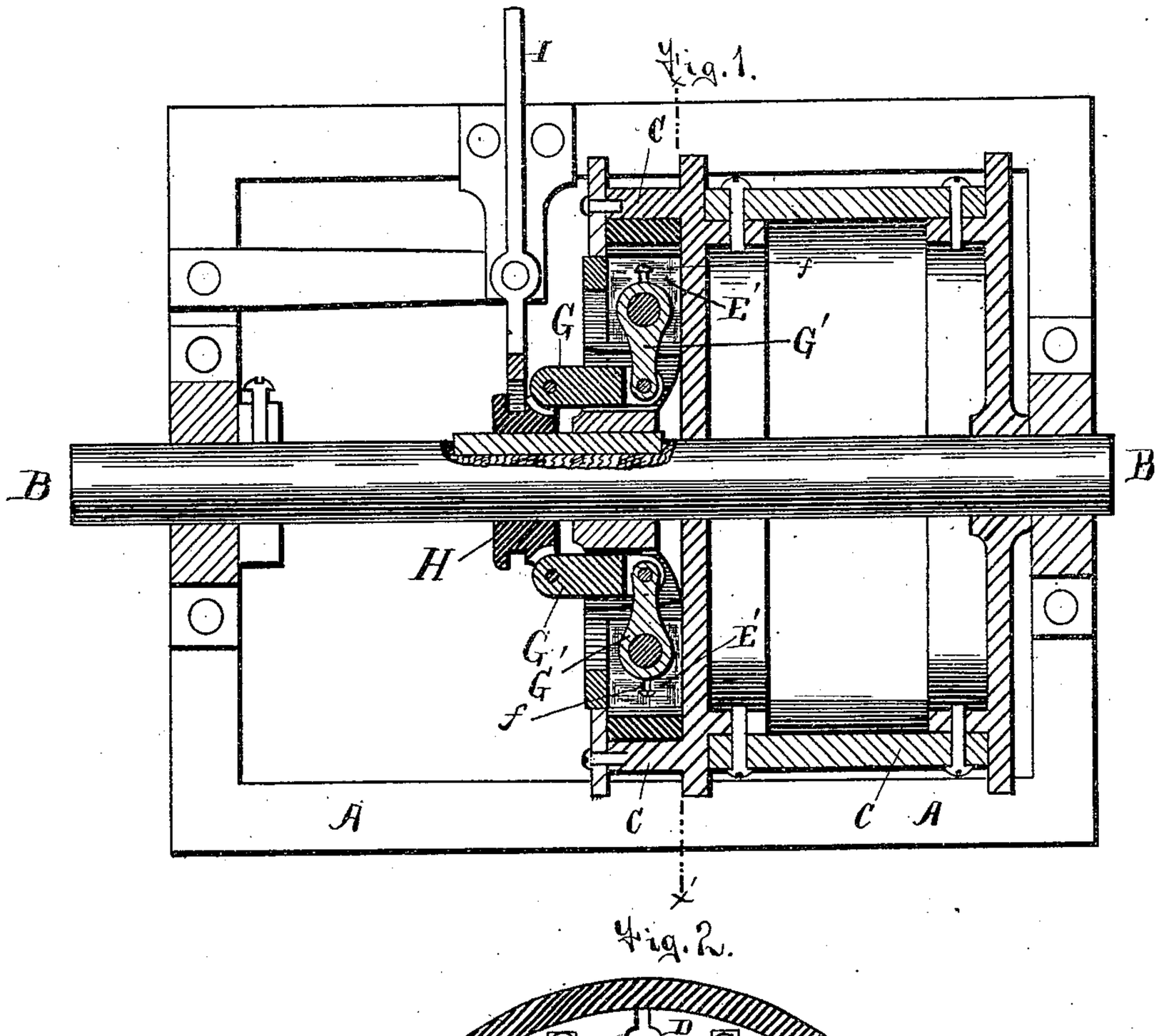
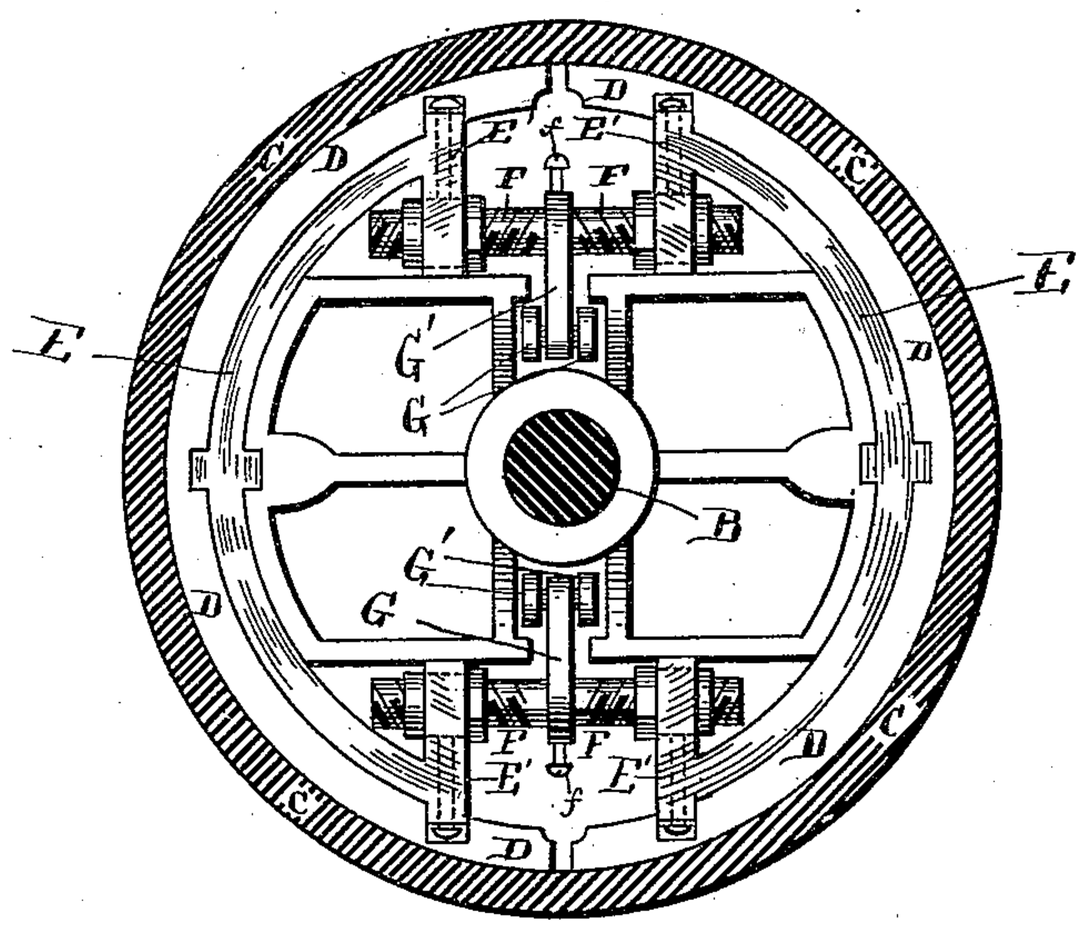


Fig. 2.



WITNESSES

Frank M. Faber.

Willard Tracker.

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WILLIAM J. RAY, OF ISHPEMING, MICHIGAN.

CLUTCH.

SPECIFICATION forming part of Letters Patent No. 228,276, dated June 1, 1880.

Application filed March 24, 1880. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM J. RAY, of Ishpeming, in the county of Marquette and State of Michigan, have invented certain new and useful Improvements in Clutches; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention more particularly relates to that class of clutches which employ two curved friction-pads having their corresponding extremities connected together by adjusting-rods, the latter having their opposite end portions provided with reverse screw-threads, while their central portions are provided with arms adapted to be moved by suitable mechanism.

My improvement consists in the special combination of details hereinafter specified and claimed.

In the drawings, Figure 1 is a sectional view of my device adapted for use in connection with a hoisting-drum for mines. Fig. 2 is a detached plan view, showing the mechanism by which it is operated.

A represents any suitable frame adapted to hold the shaft and other operative parts of my device. B represents a driving-shaft, and C a hoisting-drum. The outer casing of this drum C is prolonged, thereby affording a receptacle for my clutch mechanism. Shoes D, preferably made of wood, are fitted in this prolonged portion of the drum. Metallic sections E, formed independent of said shoes, have their opposite extremities respectively provided with inwardly-projecting ears E′, having screw-thread openings. These two sections are connected together by means of the right and left screws F F. To these right and left screws is adjustably attached the crank G′, which, in turn, is attached to the lever G, the latter being connected with the collar H. This collar H may be recessed to receive the lever I, by which it is manipulated.

It will now be seen that if the collar H is moved from the drum C it will operate the lever G and withdraw the shoes D from contact with the inner face of the drum C. This lever G is pivoted to the collar H at one end. At the other it is pivoted to the crank G′, which, in turn, is permanently attached to the double screw F; and, on the other hand, if the collar is crowded toward the drum, the shoes D will be forced against the inner face of the drum C, and serve as a permanent lock or as a brake, depending upon the pressure given to the lever I.

f f are set-screws passing through one arm of the crank G′ and adapted to engage with the double screw F. The object of this arrangement is to permit the double screw F to be adjusted, and when properly adjusted to be retained in place by the set-screw *f*. This enables the wear of the shoes D, owing to its contact with the face of the drum C, to be taken up, thereby permitting the use of the shoe D until it is entirely worn out.

When my device is used in connection with a hoisting-drum for mines I prefer, as an additional means of security, to attach the brake to the frame A, adapted by any suitable means to operate upon the flange or drum.

What I claim is—

The combination, with sections E, whose opposite extremities are respectively provided with inwardly-projecting ears E′, having screw-thread openings, of screw-rods F, provided with cranks G′, levers G, and sliding collar H′, substantially as set forth.

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

WILLIAM J. RAY.

Witnesses:

JNO. CROWELL, Jr.,

W. E. DONNELLY.