

No. 837,299.

PATENTED DEC. 4, 1906.

A. GRIEVES.
BAND BRAKE.
APPLICATION FILED FEB. 17, 1906.

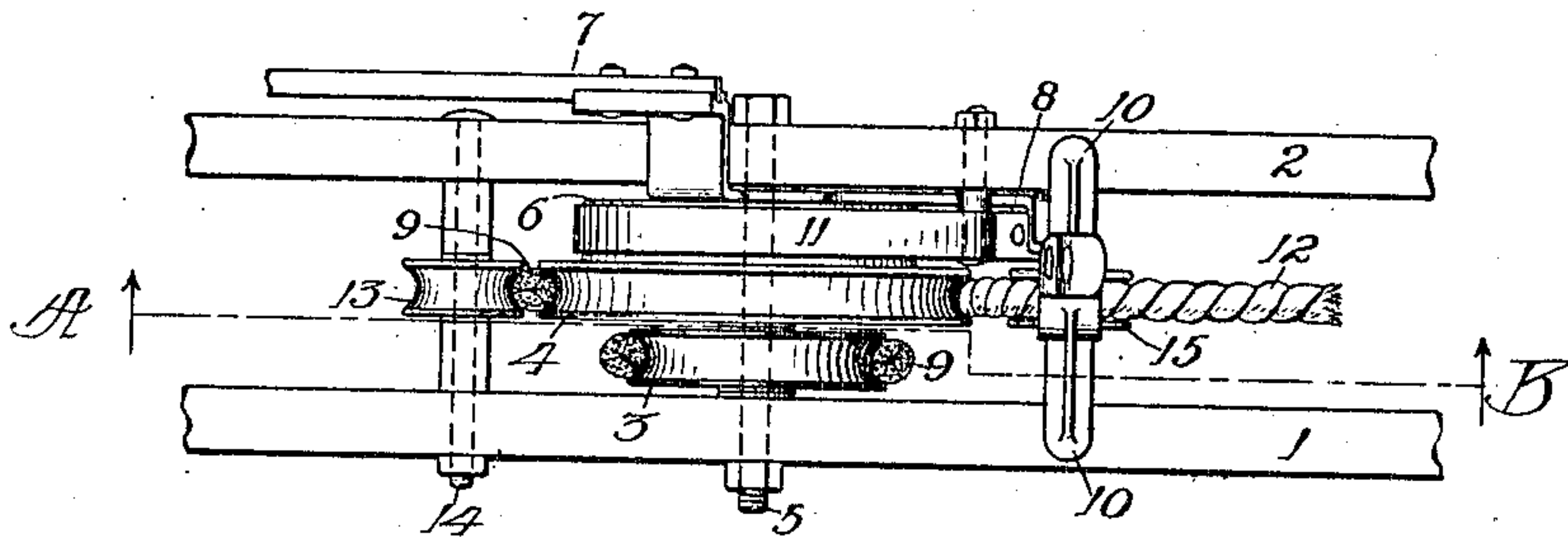


Fig. 1.

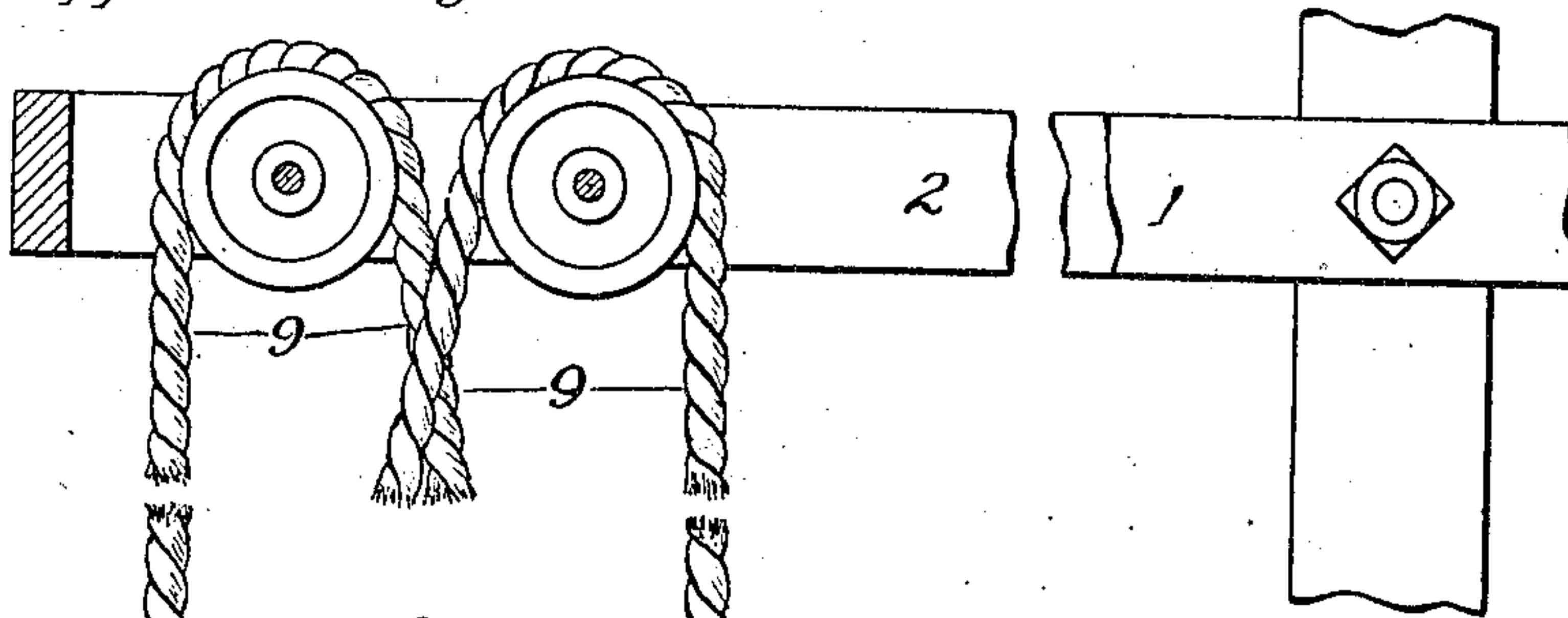


Fig. 2.

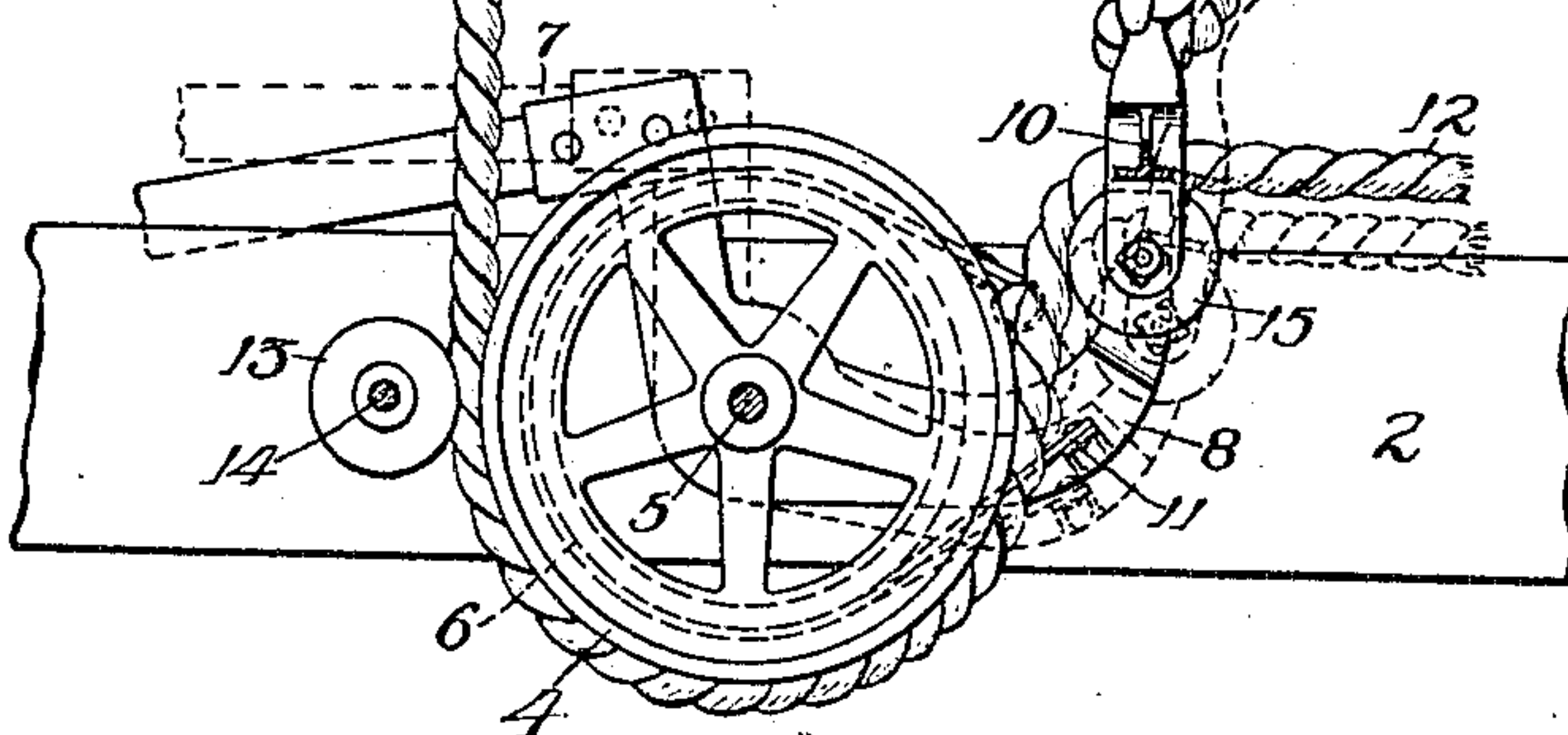
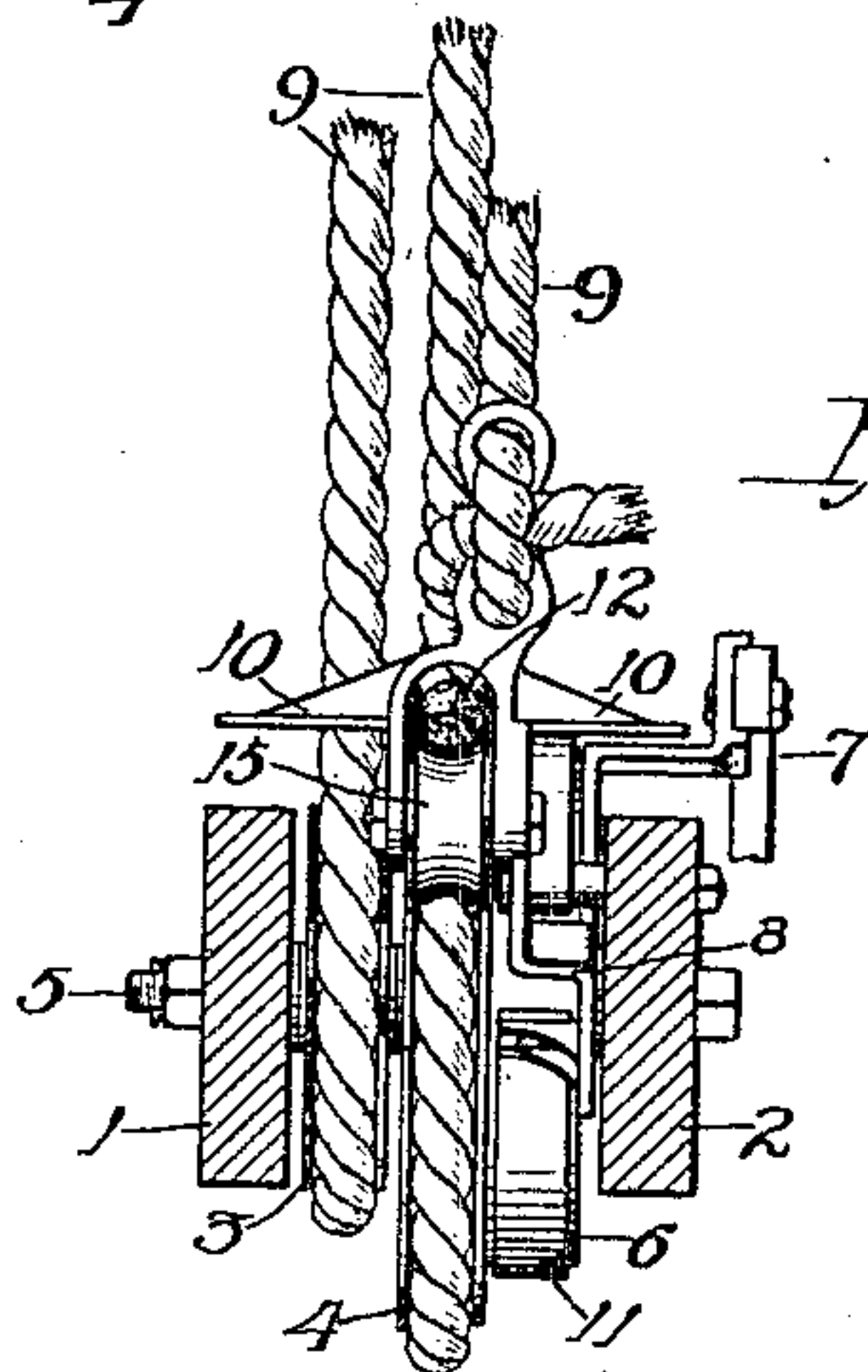


Fig. 3.



Witnesses:

J. M. Daggett.
F. W. Hoffmeister.

Inventor.
Albert Grievess.
By E. W. Burgess.
Attorney.

UNITED STATES PATENT OFFICE.

ALBERT GRIEVES, OF SPRINGFIELD, OHIO, ASSIGNOR TO INTERNATIONAL HARVESTER COMPANY, A CORPORATION OF NEW JERSEY.

BAND-BRAKE.

No. 837,299.

Specification of Letters Patent.

Patented Dec. 4, 1906.

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To all whom it may concern:

Be it known that I, ALBERT GRIEVES, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Band-Brakes, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to brake mechanism applicable to hoisting-gear, and particularly to the hoisting mechanism applied to hay-stackers.

It consists in suitable bed-pieces having sheaves or band-wheels mounted thereon and a band-brake mechanism operative to control the movement of the sheaves and also a cable-grip operative to prevent a too-rapid movement of the hoisting-rope, the object of the invention being to provide a mechanism that may be conveniently manipulated and one that will be both powerful and effective in operation. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the brake and sheave mechanism. Fig. 2 is a side elevation of Fig. 1 along line A B, and Fig. 3 is an end view of Fig. 1.

Like reference - numerals represent the same parts throughout the several views.

1 and 2 represent portions of the bed-frame members of a hay-stacker.

3 and 4 are sheaves journaled upon a cross-shaft 5, mounted upon the frame members, and 6 represents a band-rim integral with the sheave 4.

7 is a hand-lever pivotally mounted upon the cross-shaft 5 and provided with an upwardly-curved extension 8, having means for attaching one end of the hoisting-cable 9 thereto, and laterally-projecting arm portions 10 upon opposite sides thereof, adapted to contact with the frame members 1 and 2 in a manner to limit a rocking movement of the hand-lever in one direction.

11 is a flexible band having one end secured to the hand-lever and, passing partially around the rim 6, has its opposite end secured to one of the frame members. The cable 9 passes upward to suitable sheave connections mounted upon other operative parts of the hoisting mechanism and then downward around sheave 4, and it is de-

signed to apply the power to the part 12 thereof.

Any number of sheaves may be used in the mechanism in order to multiply the effective force of the applied power as desired.

The cable is held in contact with the sheave 4 by means of the sheave 13, journaled upon a fixed bearing 14, secured to the frame members upon one side of the sheave 4, and 15 is a grip-sheave journaled upon the up-turned extension 8 of the hand-lever and adapted to engage the cable, as shown in Fig. 2.

In operation, the power being applied to the cable 12, the hand-lever will swing to the position shown by dotted lines in Fig. 2, releasing the band-brake 11 and the cable-gripping sheave 15. When the power is released, the load, operating through the cable 9, automatically operates the brake mechanism to sustain the load, and when it is desired to lower the load or the load-carrying mechanism the operator by manipulating the hand-lever may effectively control the movement thereof.

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

1. In a brake mechanism, the combination of a sheave journaled in a suitable frame, a cable having its power end operatively engaging said sheave and its load end engaging a sheave in a manner operative as hoisting means, a hand-lever pivotally mounted adjacent said first-mentioned sheave, cable-gripping means mounted upon said hand-lever and operative to grip the power end of said cable against said sheave when said lever is moved in one direction, the load end of said cable being secured to said hand-lever and operative to move said lever in a direction to grip said cable when the power is released therefrom.

2. In a band-brake, the combination of a sheave journaled in a suitable frame, a cable having its power end operatively engaging said sheave and its load end engaging a sheave in a manner operative as hoisting means, a band-wheel forming part of said first-mentioned sheave, and a hand-lever pivotally mounted adjacent thereto, a flexible band partially surrounding said band-wheel and having one end secured to said hand-lever and its opposite end secured to a fixed part of the mechanism and operative to

oppose movement of said band-wheel when said lever is moved in one direction, the load end of said cable being secured to said hand-lever and operative to move it in a direction
5 to cause the flexible band to engage the band-wheel when the power is released from the cable.

3. In a band-brake, the combination of a sheave journaled in a suitable frame, a cable
10 having its power end operatively engaging said sheave and its load end engaging a sheave in a manner operative as hoisting means, a hand-lever pivotally mounted adjacent said first-mentioned sheave, a band-
15 wheel forming part of said sheave, a flexible band partially surrounding said band-wheel and having one end secured to said hand-lever and its opposite end secured to a fixed part of the mechanism and operative to op-
20 pose movement of said band-wheel when said lever is moved in one direction, cable-gripping means mounted upon said hand-lever and operative to grip the power end of said cable against the sheave when said lever is
25 moved in the same direction, the load end of said cable being secured to said hand-lever and operative to move the lever in the same direction when the power is released from the cable.

30 4. In a brake mechanism, the combination of a sheave journaled in a suitable frame, a cable having its power end operatively engaging said sheave and its load end engaging a sheave in a manner operative as hoisting

means, a hand-lever pivotally mounted adjacent said first-mentioned sheave, cable-grip- 35
ping means mounted upon said hand-lever and operative to grip the power end of said cable against the sheave when said lever is moved in one direction, the load end of said
40 cable being secured to said hand-lever and operative to move said lever in a direction to grip said cable when the power is released therefrom, and means for limiting the movement of said lever in the opposite direction. 45

5. In a brake mechanism for hay-stackers, the combination of longitudinally-arranged frame members, a shaft secured to said frame members, one or more sheaves journaled upon said shaft, a band-wheel integral with
50 one of said sheaves, and a cable having its power end operatively engaging said sheaves and its load end passing around sheaves journaled upon a separate support, a hand-lever pivoted coaxially with said first-named
55 sheaves, said lever extending beyond its pivotal connection, cable-gripping means carried by said extended portion, and means for attaching the load end of said cable thereto, whereby the load operates the gripping
60 means when the power is released.

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

ALBERT GRIEVES.

Witnesses:

HERBERT V. FLEMING,
C. C. ROOT.