

No. 667,781.

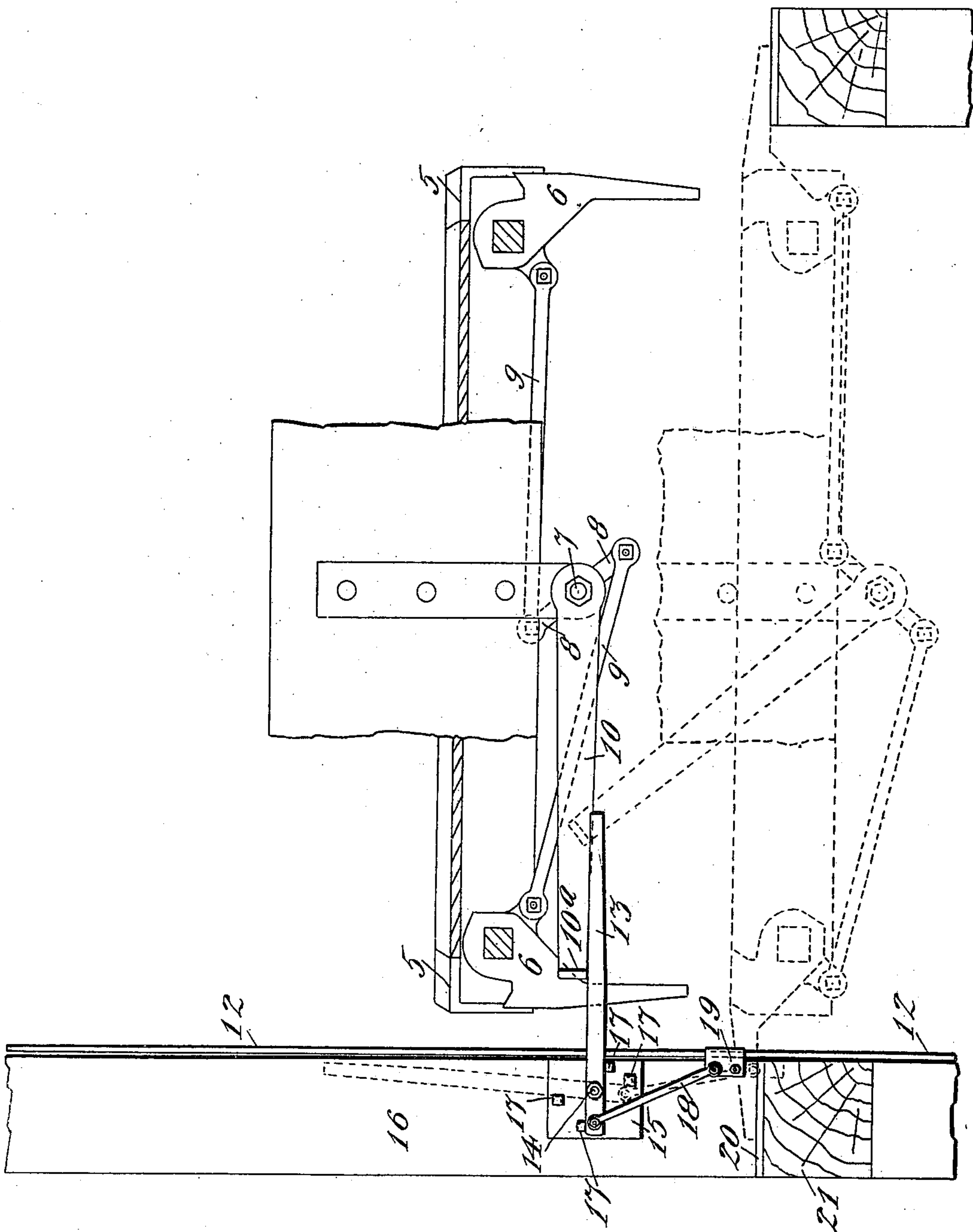
Patented Feb. 12, 1901.

M. W. JELINEK.

CAGE CHAIR OPERATING MECHANISM.

(Application filed May 26, 1900.)

(No Model.)



Witnesses,
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UNITED STATES PATENT OFFICE.

MATTHIAS W. JELINEK, OF BLACK HAWK, COLORADO, ASSIGNOR OF ONE-THIRD TO WILLIAM H. DAVIS, OF SAME PLACE.

CAGE-CHAIR-OPERATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 667,781, dated February 12, 1901.

Application filed May 26, 1900. Serial No. 18,157. (No model.)

To all whom it may concern:

Be it known that I, MATTHIAS W. JELINEK, a citizen of the United States of America, residing at Black Hawk, in the county of Gilpin and State of Colorado, have invented certain new and useful Improvements in Cage-Chair-Operating Mechanism; and I do 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 appertains to make and use the same, reference being had to the accompanying drawing, and to the figures of reference marked thereon, which forms a part of this specification.

My invention relates to improvements in means for operating safety cage-chairs in mining-shafts. This operating device or mechanism is specially intended for use in connection with a construction wherein the supporting-chairs are mounted on the cage, said construction being set forth in a simultaneously-pending application, Serial No. 18,156, filed May 26, 1900, and therefore will be only briefly described herein.

The mechanism covered by my present application is so arranged as to be operated by the engineer, and embodies means whereby a lever may be thrown out to engage a crank whose movement throws the safety-chairs on the cage to the operative position, causing them to engage the first set of shaft-timbers reached by the cage.

The invention will now be described in detail, reference being made to the accompanying drawing, in which is illustrated an embodiment thereof.

The drawing is a section taken through the timbers of a mining-shaft, showing the cage partly in section and the cage-chair-operating mechanism in elevation.

In the drawing let the numeral 5 designate the cage, upon which are movably mounted the chair-dogs 6. Upon the cage is journaled a shaft 7, provided with cranks 8, which are respectively connected with the chair-dogs by links 9. Fast on the outer extremity of the shaft 7 is an operating-crank 10, whose outer or free extremity is bent at right angles to the body of the crank, as shown at 10^a.

The cage-chair-operating mechanism will now be described.

Let the numeral 12 designate a vertical rod extending the entire length of the shaft. At each level, station, or other desired point or locality is placed a lever 13, fulcrumed at 14 on a plate 15, secured to the shaft-timber 16 by lag-screws 17. With the short arm of the lever 13 is connected one extremity of a link 18, whose opposite extremity is connected with a clamp 19, secured to the rod 12, which has a limited vertical movement in the shaft. The normal position of these parts when not in use is shown by dotted lines in the drawing. By lifting the rod 12 a short distance—say a few inches—the said parts may be thrown to the full-line position by virtue of the action of the link 18 upon the lever 13, which being thrown to the horizontal position protrudes into the shaft, occupying a position in the path of the bent extremity 10^a of the cage-crank 10. Then as the cage continues its movement the crank is turned sufficiently to throw the chair-dogs 6 outwardly to the horizontal position, whereby they will engage the wall-plates 20 of the shaft-timbers 21 as soon as the cage moves to the position shown by dotted lines.

The rod 12 may be actuated by suitable mechanism (not shown) under control of the engineer at the top of the shaft.

When the lever 13 is thrown to either the full-line or the dotted-line position, it is locked against further movement in the same direction by the lag-screws 17, whose heads project sufficiently for the purpose.

Having thus described my invention, what I claim is—

1. The combination with a cage and chair mechanism mounted thereon, of means supported independently of the cage and located adjacent the shaft for operating the chair mechanism.

2. The combination with a cage and chair mechanism mounted thereon, of means for operating the chair mechanism, comprising a vertically-movable rod located in the shaft, and a lever arranged to be operated by the movement of the rod.

3. The combination with a cage and chair mechanism thereon, of means for operating the chair mechanism comprising a vertically-movable rod, a lever fulcrumed adjacent the

shaft, and a link connecting the rod with the lever.

4. The combination with a cage and chairs and an operating-crank on said cage, of a vertically-movable rod located in the shaft adjacent the cage, a lever fulcrumed adjacent the shaft, and a link connecting the rod with one arm of the lever whereby the movement of the rod throws the lever into the shaft to en-

gagement with the cage-chair-operating crank.

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

MATTHIAS W. JELINEK.

Witnesses:

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