

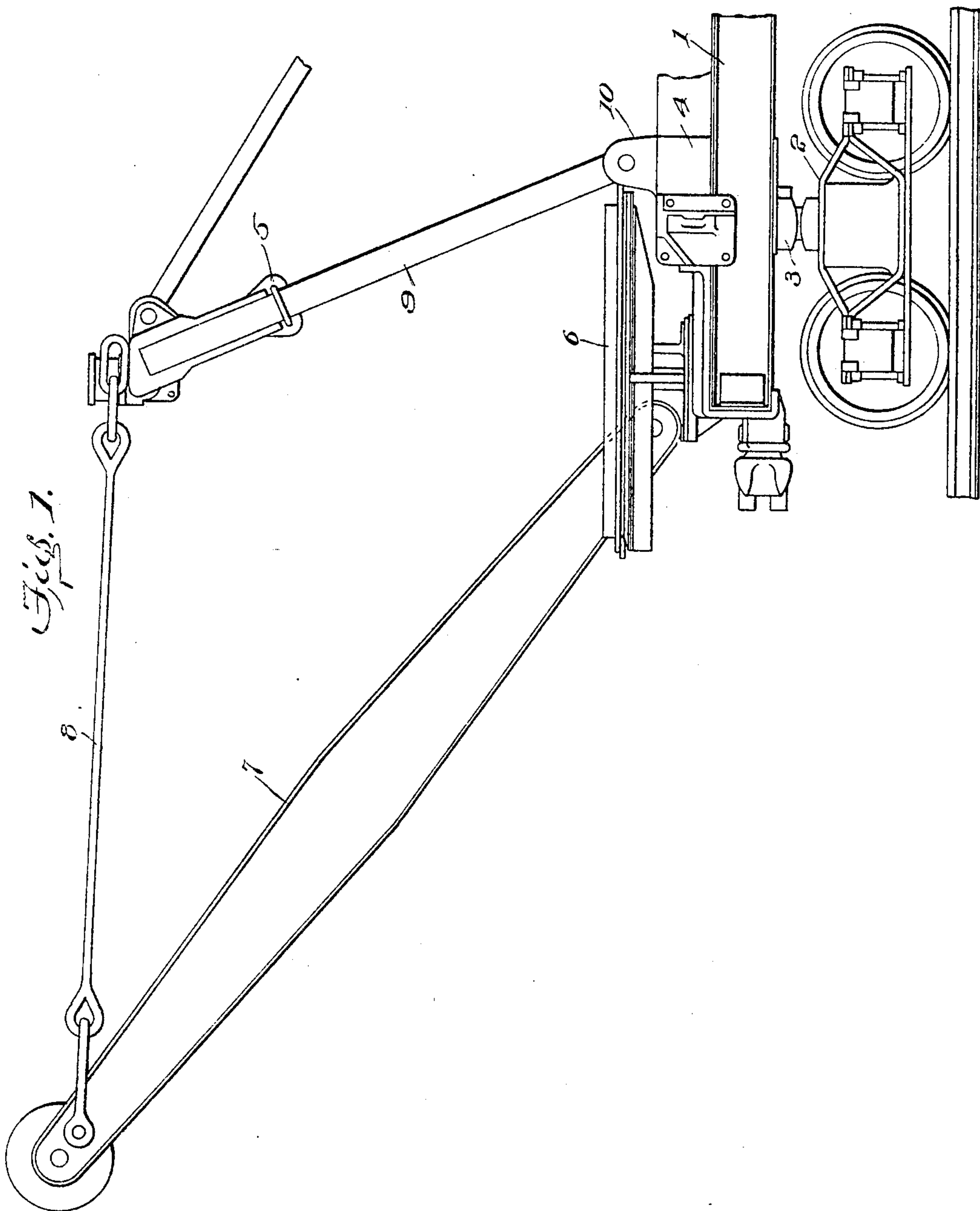
No. 799,170.

PATENTED SEPT. 12, 1905.

G. W. KING.  
STEAM SHOVEL.

APPLICATION FILED MAY 20, 1905.

3 SHEETS—SHEET 1.



Witnesses

*G. Howard Walmsley,*  
*Ernie Miller.*

Inventor  
*George W. King,*

By *A. P. Foulmer.*

Attorney

No. 799,170.

PATENTED SEPT. 12, 1905.

G. W. KING.  
STEAM SHOVEL.

APPLICATION FILED MAY 20, 1905.

3 SHEETS—SHEET 2

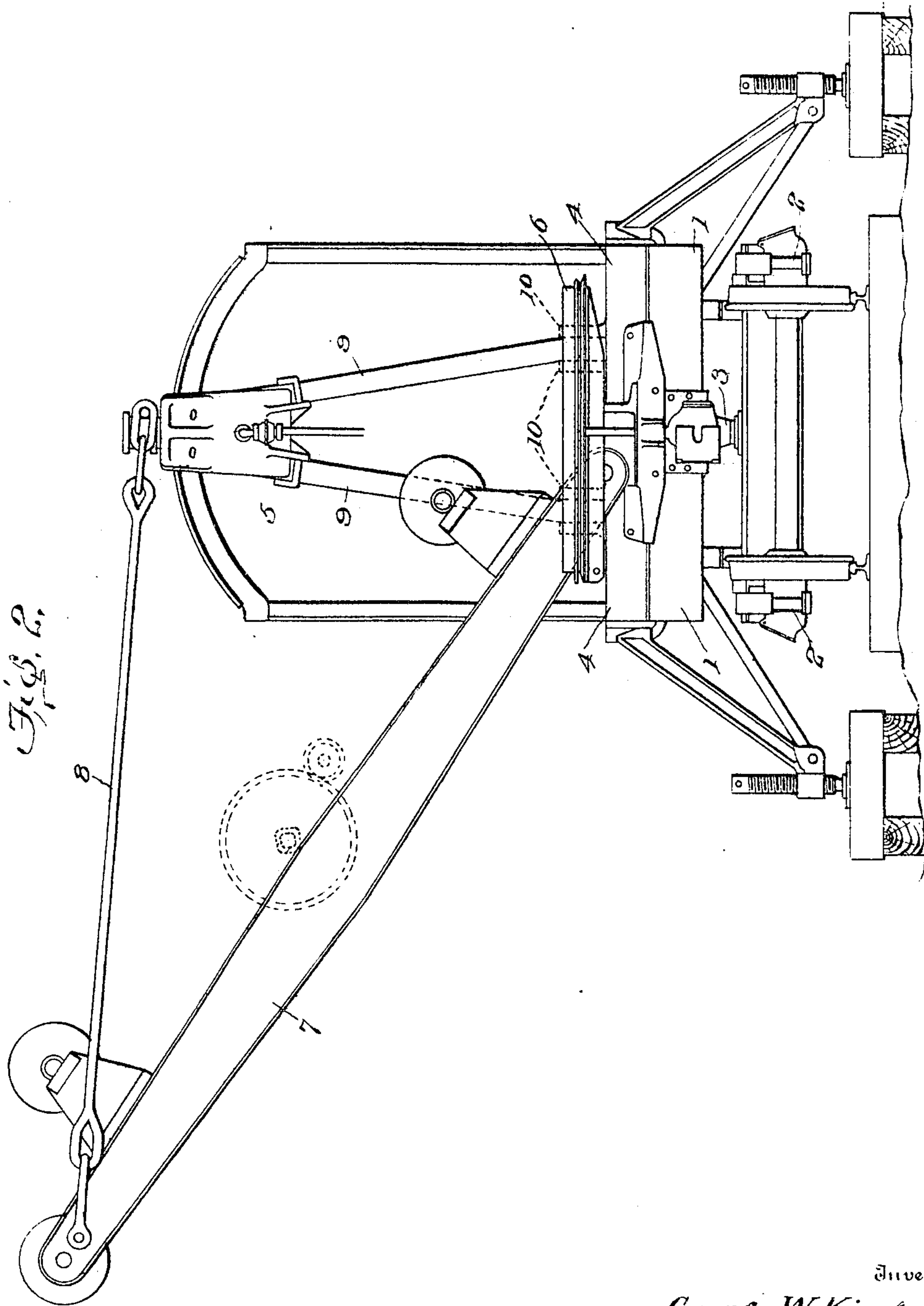


Fig. 2.

Witnesses

*K. Howard Walmsley,*  
*Irvine Miller*

Inventor

*George W. King,*

By *H. A. Toulmin,*

Attorney

No. 799,170.

PATENTED SEPT. 12, 1905.

G. W. KING.  
STEAM SHOVEL.

APPLICATION FILED MAY 20, 1905.

3 SHEETS—SHEET 3.

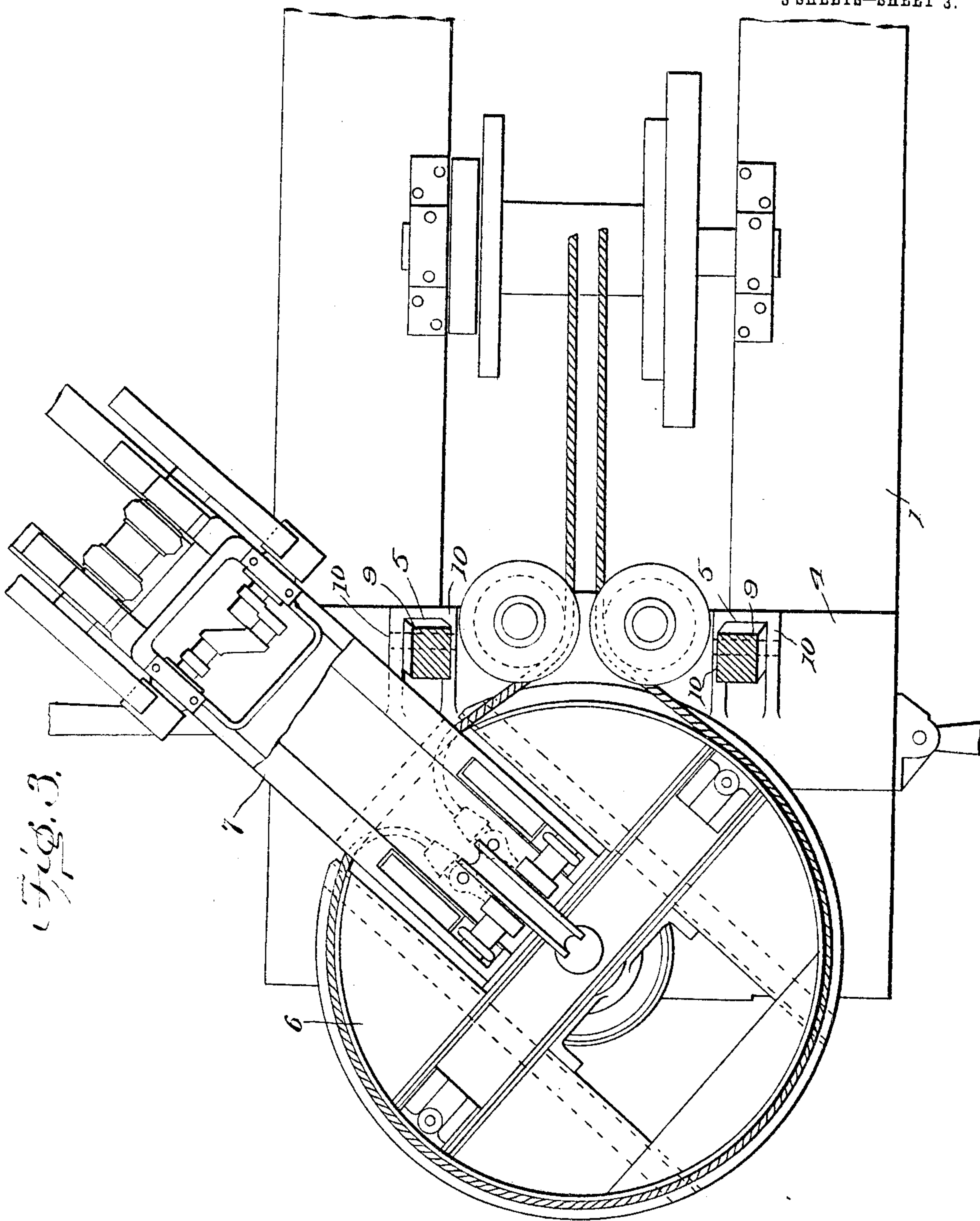


Fig. 3.

Witnesses

*H. Howard Walmsley*  
*Ernest Miller*

Inventor  
*George W. King.*

By *H. A. Coulman.*

Attorney



# UNITED STATES PATENT OFFICE.

GEORGE W. KING, OF MARION, OHIO, ASSIGNOR TO THE MARION STEAM SHOVEL COMPANY, OF MARION, OHIO, A CORPORATION OF OHIO.

## STEAM-SHOVEL.

No. 799,170.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed May 20, 1905. Serial No. 261,307.

*To all whom it may concern:*

Be it known that I, GEORGE W. KING, a citizen of the United States, residing at Marion, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Steam-Shovels, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to steam-shovels, and has for its object to provide a construction whereby the range of the swinging movement of the boom may be increased, so as to permit the boom to swing back past a line transverse to the longitudinal axis of the machine and deliver or gather the material at a point considerably to the rear of the front end of the machine.

To this end my invention consists in certain novel features, which I will now proceed to describe and will then particularly point out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a steam-shovel embodying my invention in one form, only so much thereof being shown as is necessary to a comprehension thereof. Fig. 2 is a front elevation of the same, and Fig. 3 is a plan view of the same.

In the said drawings, 1 indicates the body of the machine supported at its forward end on a truck 2 by means of a center bearing 3, said body having located on its upper side a cross-sill 4, which supports the A-frame 5.

6 indicates the swinging circle or turn-table, and 7 the boom, connected to the A-frame by the usual boom-brace 8.

In steam-shovels as now constructed the A-frame is mounted upon a cross-sill on the front part of the body, the diverging legs of the A-frame being connected to the cross-sill at its ends, so as to bring the weight of the A-frame and its load as near as possible to the ends of the cross-sill and the jack-braces which are there connected to it, the object being to support the load from the ground through the jack-braces without necessitating any special provision for strengthening the body portion of the cross-sill or the adjacent part of the car-body. This gives the lower part of the A-frame such a width as to prevent the boom from swinging back to any material extent. As a remedy for this various constructions have been proposed. In United States Letters

Patent No. 578,751, granted to me March 16, 1897, there is disclosed a construction in which the cross-sill or support for the A-frame is extended upward to such a height as to permit the employment of an A-frame whose vertical height is relatively small and the lateral spread of its legs correspondingly reduced, thereby permitting the boom to have an increased rearward swing. An objection to this construction is the increased cost thereof. Another solution of the problem is disclosed in United States Letters Patent No. 761,079, granted May 31, 1904, to The Marion Steam Shovel Company as assignee of myself and others. In this construction the diverging legs of the A-frame are extended laterally outward at their lower parts to form shoulders over which the boom may swing, the portion of the frame above said shoulders being constricted so as to increase the range of backward movement of the boom. Here again the cost of construction is increased.

My present invention provides an A-frame the diverging legs 9 of which extend downward in substantially straight lines, their angle of divergence being such that their lower ends meet the cross-sill and are connected thereto at points lying inward from the ends of said sill, about midway between its center and ends. The sill is constructed in the form of a casting having sufficient strength to give stiffness to the front end of the body 1, across which it extends, and to transmit the weight thereof to the truck-center bearing, which is located under the central part of this cross-sill. The lugs 10 on the cross-sill, which serve as means for the pivotal attachment of the lower ends of the A-frame legs, are thus firmly supported and at the same time located so far inward from the ends of the sill as to permit the boom to swing back over either end of the sill in the manner shown in Fig. 3, so as to reach points located far back of the front end of the machine.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a steam-shovel, a body having a cross-sill, a swinging boom pivotally mounted in front of said cross-sill, and an A-frame provided with a brace for supporting the outer end of the boom, said A-frame having straight diverging legs, the lower ends whereof are

mounted on the cross-sill at points about midway between the center and ends of said cross-sill, substantially as described.

2. In a steam-shovel, a body having a cross-sill, a swinging boom pivotally mounted in front of said cross-sill, and an A-frame provided with a brace for supporting the outer end of the boom, said A-frame having straight diverging legs, the lower ends whereof are mounted on the cross-sill at points about midway between the center and ends of said cross-sill, said cross-sill consisting of a casting con-

stituting a stiffening member for the body, and said body being provided with a supporting-truck having its center bearing under the center of said cross-sill, substantially as described. 15

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

GEORGE W. KING.

Witnesses:

ROBERT G. LUCAS,

WILLIAM R. SHISLER.