

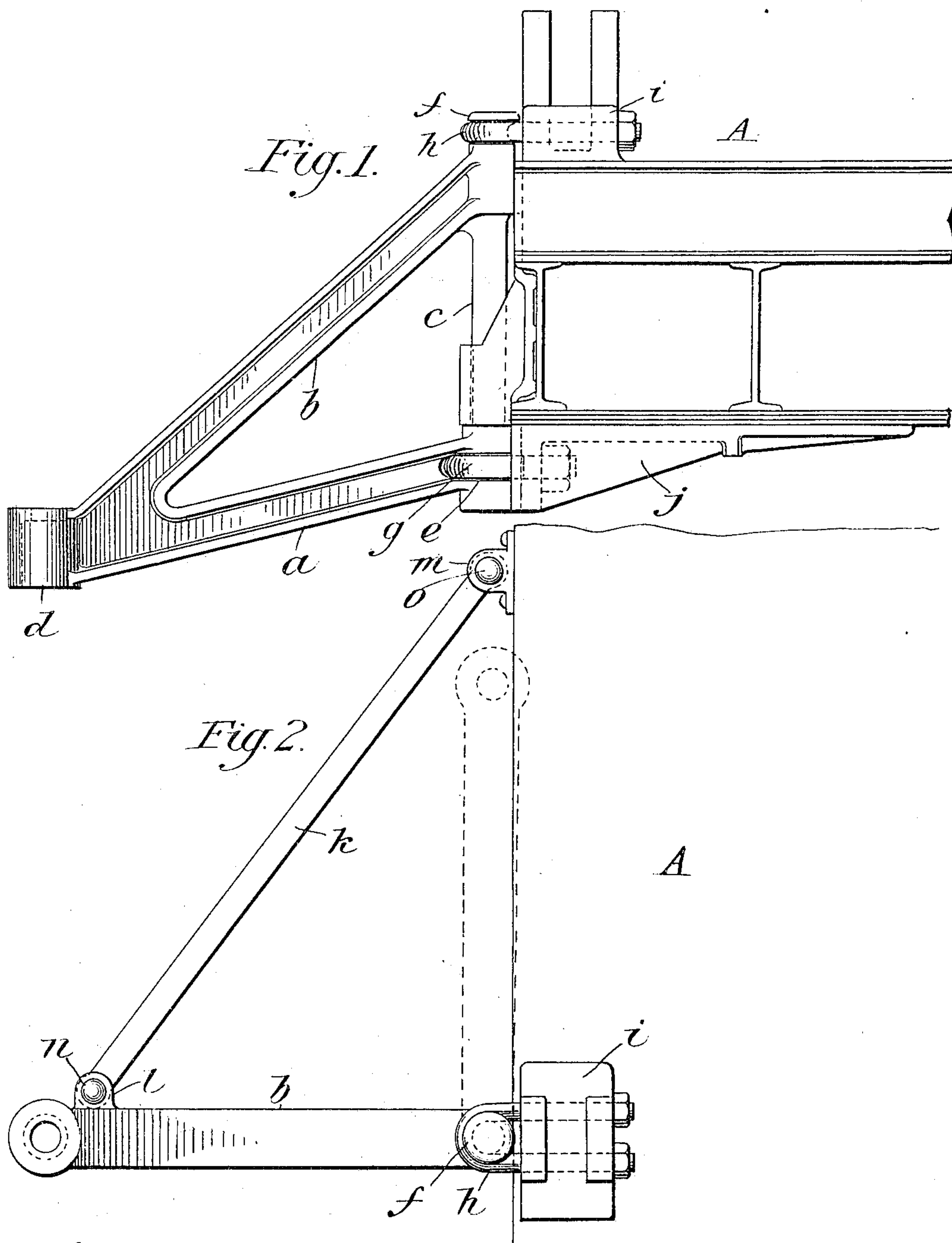
No. 801,534.

PATENTED OCT. 10, 1905.

W. E. MAGIE.

JACK ARM.

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UNITED STATES PATENT OFFICE

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THE BUCYRUS COMPANY, OF SOUTH MILWAUKEE, WISCONSIN, A
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JACK-ARM.

No. 801,534.

Specification of Letters Patent.

Patented Oct. 10, 1905.

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To all whom it may concern:

Be it known that I, WILLIAM E. MAGIE, a citizen of the United States, residing in South Milwaukee, county of Milwaukee, Wisconsin, have invented certain new and useful Improvements in Jack-Arms; 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 appertains to make and use the same.

The invention relates to jack-arms for railway-cars, excavators, and the like, and has for its object the provision of a jack-arm of simple form and great strength that is capable of being folded back against the car-body when not in use without disassociating or disconnecting the members of the jack-arm.

To this end the invention comprises a jack-arm having a tension member and a compression member united at their outer ends, a pivot-pin connecting the divergent ends of said members and yokes or shackles connecting the ends of said pivot-pin to the car-body to permit the arm to swing horizontally.

In the accompanying drawings, Figure 1 is a side elevation of the improved jack-arm applied to a car, said arm being in its outer or operative position. Fig. 2 is a plan view of the same.

Referring to the drawings, A indicates the body of a car, such as is usually employed as the support for excavators, wrecking-cranes, and the like. In order to provide a more stable foundation for such structures than the wheels afford, it is customary to provide jack-arms consisting of bracket-like structures projecting from the sides of the car-body to extend the area of the car-support. The jack-arms as heretofore constructed usually consisted of a compression member provided with either a vertical or a horizontal pivotal connection with the car-body and a tension member mounted upon a horizontal pivot. This arrangement rendered it necessary to separate the two members before they could be withdrawn within the permissible lateral overhang of the car with respect to the right of way. When thus separated, the compression member was swung in either a horizontal or a vertical plane to bring the same within the limits of the car-body and the tension member was invariably rotated in a vertical plane about its pivotal point in order to prop-

erly stow said member out of the way. It is apparent that such an arrangement necessarily occasioned considerable delay in setting and stowing the several jack-arms, and the separable character of the arms rendered the apparatus liable to disarrangement or rupture. These difficulties, inherent in the old structures, are entirely obviated by the jack-arm forming the basis of the present invention. Each of said jack-arms consists of a tension member *a*, a compression member *b*, and a pivot-pin *c*, the whole comprising a triangular structure, preferably formed as an integral metal casting. At the outer end of the arm where the tension and compression members are united there is provided a threaded socket *d* for the usual jack-screw. The pivot-pin *c* is provided near each end with annular journals *e* and *f*, by means of which the jack-arm is secured for rotatory motion in a horizontal direction in the yokes or shackles *g* and *h*, which latter are secured to suitable brackets *j* and *i* on the car-body and serve as bearings for said journals *e* and *f*, respectively. As thus constructed and applied the jack-arm swings freely on a vertical pivot, so that the whole jack-arm structure may be rotated horizontally and when not in use may be folded up against the car-body.

To take up any lateral strain that may be imposed upon the several jack-arms when the latter are supporting the car and its apparatus, each of said arms is provided with a brace *k*, pivoted at one end to the car-body and adapted to be secured to a bracket *l* on the outer end of the jack-arm by means of a removable pin *m*, which passes through registering holes in the bracket and brace end. When the jack-arm is not in use, this brace *k* may be wholly removed by taking out the pins *o* and *n*, or the pin *n* only may be removed and the brace swung back against the body of the car.

What I claim is—

1. A jack-arm for railway-cars, comprising a tension member and a compression member united at their outer ends, both of said members having a vertical pivot connection with the car-body, whereby said jack-arm swings horizontally and may be folded back against the car-body.

2. A jack-arm for railway-cars comprising a tension member and a compression member

formed as an integral structure, said members having a vertical pivot connection with the car-body.

3. A jack-arm for railway-cars comprising
5 a tension member and a compression member
formed as an integral structure, said members
having a vertical pivot connection with the
car-body, and a lateral brace removably con-
10 nected at one end to the forward end of the
jack-arm and to the car-body at the other.

4. A jack-arm for railway-cars comprising
a tension member, a compression member,
and a vertical pivot-pin connecting the diver-

gent ends of said members, and shackles en-
gaging the ends of said pivot-pin and con- 15
necting the jack-arm to the car for swinging
movement about a vertical axis, whereby the
jack-arm may be folded back against the car-
body.

In testimony whereof I affix my signature in 20
presence of two witnesses.

WILLIAM E. MAGIE.

Witnesses:

HARRY B. HAYDEN,
P. C. BODE.