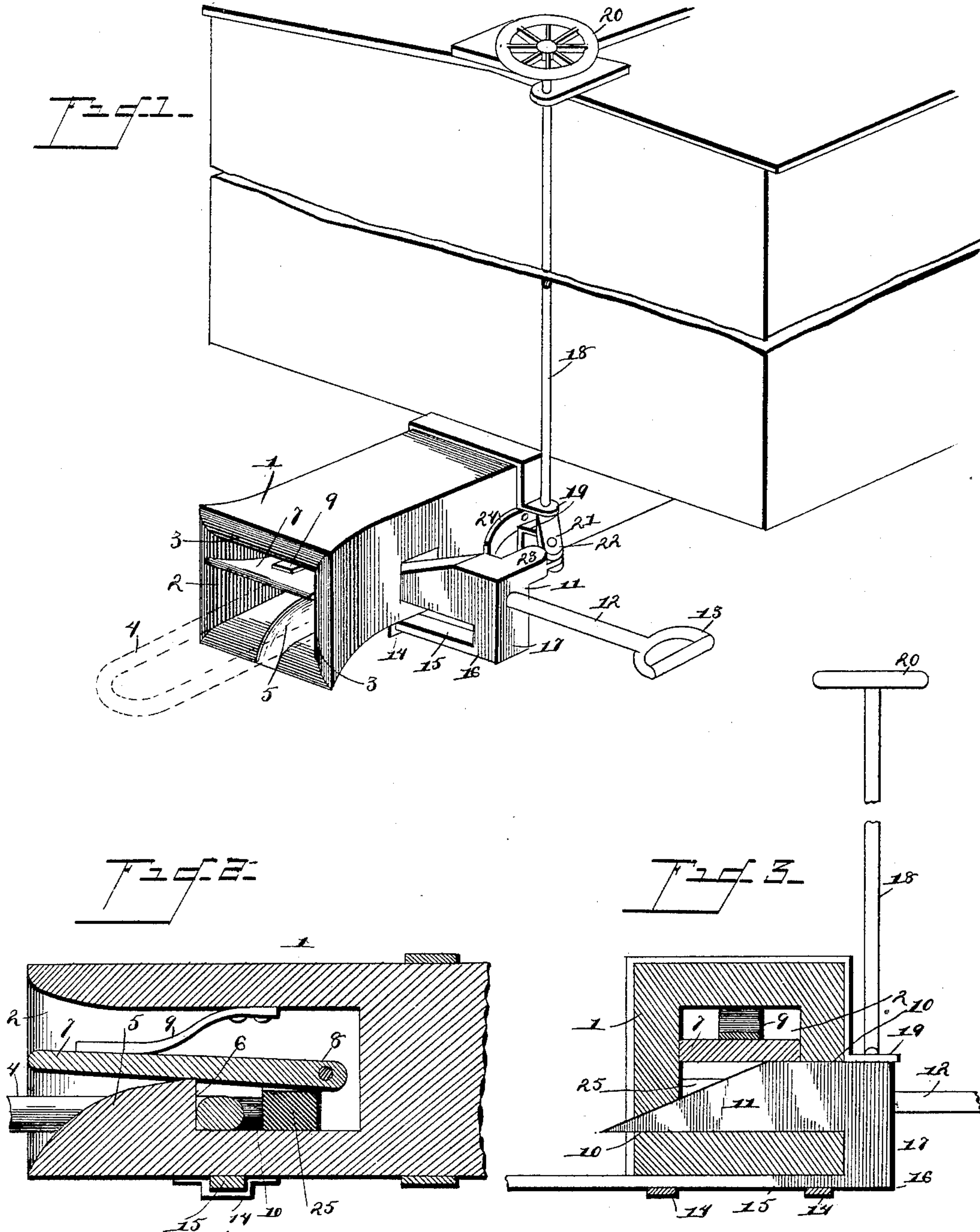


(No Model.)

J. HUMERICKHOUSE & J. KRAUS.
CAR COUPLING.

No. 435,661.

Patented Sept. 2, 1890.



Witnesses

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UNITED STATES PATENT OFFICE.

JONATHAN HUMERICKHOUSE AND JACOB KRAUS, OF ELWOOD, INDIANA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 435,661, dated September 2, 1890.

Application filed April 25, 1890. Serial No. 349,547. (No model.)

To all whom it may concern:

Be it known that we, JONATHAN HUMERICKHOUSE and JACOB KRAUS, citizens of the United States, residing at Elwood, in the county of Madison and State of Indiana, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

The object of the present invention is to provide an automatic coupling adapted to be readily coupled upon the cars coming together without the intervention of hand, and capable of being readily uncoupled without necessitating a person being between the cars.

A further object of the invention is to provide a car-coupling capable of automatically uncoupling should a car become derailed or upset in any manner, and thereby avoid the liability of one car derailing others.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a car-coupling constructed in accordance with this invention and shown applied in operative position, the beveled block for uncoupling the cars being swung aside and a link being in proper position for coupling. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a transverse sectional view, the beveled uncoupling-block being shown in elevation.

Referring to the accompanying drawings, 1 designates a coupler-head suitably connected to a draw-bar and provided with a longitudinal opening 2, having a flaring mouth rectangular in cross-section and provided with inwardly-inclined walls 3 to direct a link 4 to a beveled hook or catch 5, the rear face 6 of which is shouldered and adapted to engage the link to couple the cars. The flaring mouth of the coupler-head is constructed sufficiently large to enable the link of an adjacent car, whether the latter is higher or lower than the next car, to readily enter the mouth of the coupler-head and be directed by the inclined walls thereof to the bevel catch to be engaged thereby. By this construction

the car-coupling is readily adapted to the variations in height of the coupler-heads of different cars, and thereby enable two cars having their draw-heads arranged at different heights to be readily and automatically coupled without the intervention of hands. The link is maintained in engagement with the beveled catch 5 and the cars prevented becoming accidentally uncoupled by a tongue 7, having its rear end 8 hinged in the rear of the longitudinal opening 2 of the coupler-head, and having its front end conforming to the configuration of the sides of the opening and arranged to rest upon the top of the catch 5 to hold the link in engagement with the shoulder 6 of the catch. The weight of the tongue 7 may be sufficient to prevent the link becoming disengaged from the shoulder; but it is preferable to employ flat spring 9, having one end secured to the top wall of the opening 2 and its free end bearing upon the upper face of the tongue; but the spring may, if desired, be omitted. The coupler-head 1 is provided back of the catch 5 with a transverse opening 10, in which slides a beveled block 11, adapted to engage the lower face of the link 4 and raise the latter and carry it out of engagement with the catch 5, and when the cars have been backed and slackened the beveled uncoupling-block will readily raise the link and the hinged tongue and the cars can then be separated.

The car-coupling may be operated from the sides and the top of the car, and the uncoupling-block 11 is provided with a horizontal rod 12, that has its outer end provided with a handle 13, which is arranged at the side of the car and adapted to be pushed inward to release the link. Arranged beneath the coupler-head and sliding in a keeper 14 is a bar 15, having one end 16 connected by a block 17 with the uncoupling-block 11, and the other end of the bar 15 is designed to be provided with a rod and handle to enable the car-coupling to be operated from the other side of the car, the handle of the rod being arranged on the side of the car opposite the handle 13. The coupling is operated from the top of the car by a vertical rod or shaft 18, which has its lower end journaled between perforated ears 19, and the upper end of the

vertical shaft 18 is provided with a wheel 20, constructed in the usual manner. The vertical shaft 18 is provided with an arm 21, that has its outer end 22 bifurcated and pivoted to a rearward extension 23 of the beveled uncoupling-block 11, and by turning the vertical shaft the car-coupling will be operated from the top of the car. The uncoupling-block is normally maintained out of engagement with the link 4 by a spring 24, one end of which is secured to the side of the coupler-head and the other or free end is arranged to engage the rearward extension 23 of the uncoupling-block.

It will readily be seen that the car-coupler is simple and inexpensive in construction, automatic in its operation, and is capable of being operated to uncouple the cars from the top and sides of the latter, and that a coupler-head will readily be uncoupled should it become twisted by derailment or the like.

The common ordinary link may be employed, and to insure its maintaining its proper position and to prevent its slipping rearward when the cars come together a block of rubber 25 or similar material may be secured in the longitudinal opening back of the catch; but an oval link may be employed, if found preferable.

What we claim is—

1. In a car-coupling, the combination of the coupler-head having a longitudinal opening and a flaring mouth and provided with the beveled catch 5, and the transverse openings 10, arranged at the rear of the catch, the tongue having its rear end pivoted in the longitudinal opening and its front end arranged to engage the catch, the beveled uncoupling-block sliding in the transverse opening, and

suitable means for operating the uncoupling-block, substantially as described.

2. In a car-coupling, the combination of the coupler-head having the longitudinal opening 2, the transverse opening 10, and the bevel catch 5, arranged in front of the transverse opening, the beveled uncoupling-block sliding in the transverse opening and provided with a rearward extension, and the vertical shaft having an arm 21, pivoted to the rearward extension, substantially as described.

3. In a car-coupling, the combination of the coupler-head having the longitudinal opening 2 and the transverse opening 10 and provided with a beveled catch 5, the uncoupling-block 11, sliding in the transverse opening and provided with the rod 12, extending to one side of the car and having the bar 15 arranged beneath the coupler-head and extending in the opposite direction, and the hinged tongue, substantially as described.

4. In a car-coupling, the combination of a coupler-head having a longitudinal opening and a transverse opening and provided with the catch 5, the spring-actuated tongue hinged in the longitudinal opening, the spring 24, secured to the coupler-head and having its free end engaging the uncoupling-block, and suitable means for operating the latter, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

JONATHAN HUMERICKHOUSE.
JACOB KRAUS.

Witnesses:

WARD L. ROACH,
G. W. STOUT.