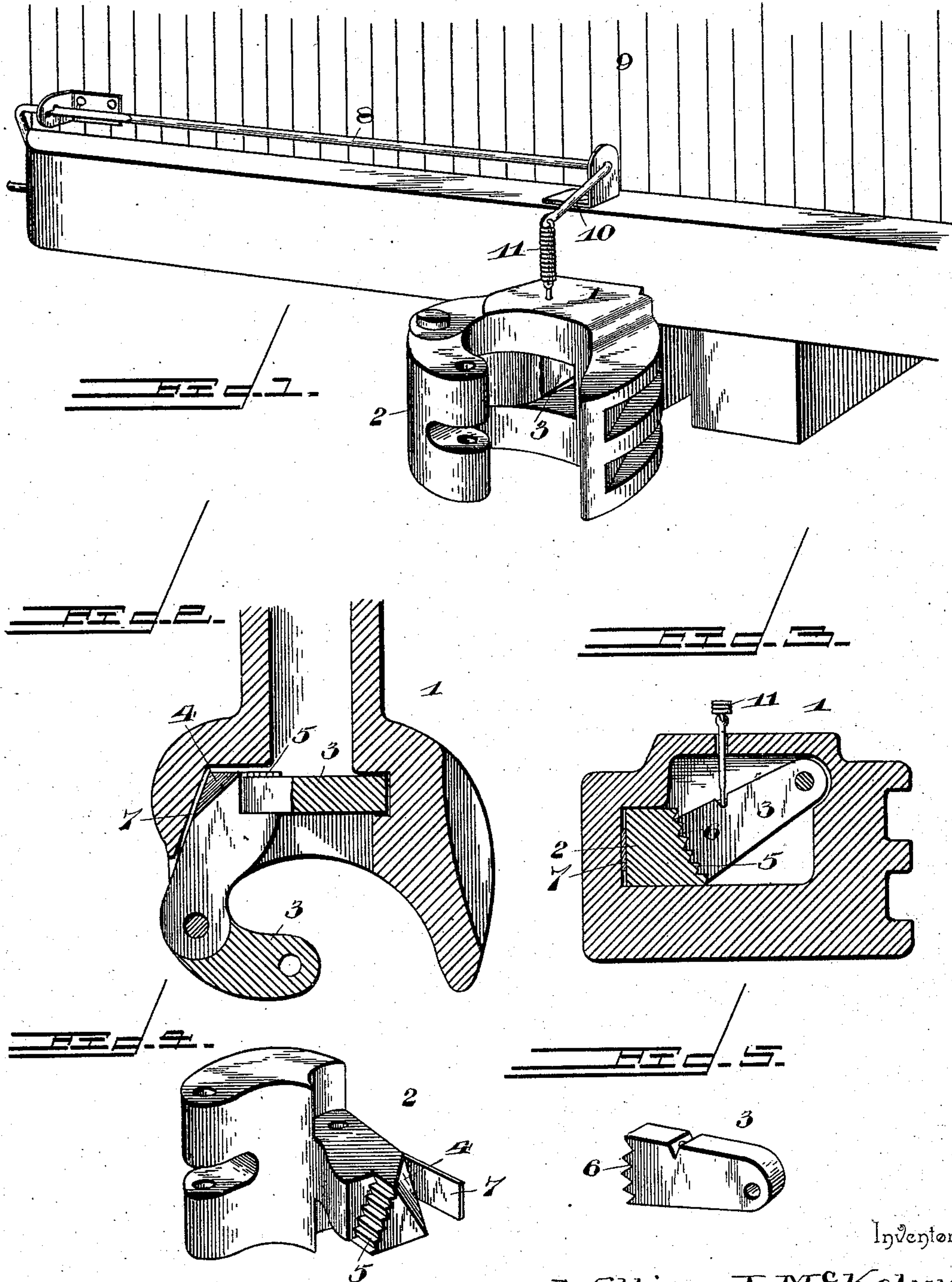


(No Model.)

W. J. McKELVY.
CAR COUPLING.

No. 575,972.

Patented Jan. 26, 1897.



Inventor,

William J. McKelvy,

By his Attorneys,

Cash & Co.

Witnesses

H. Doyle
J. J. City

UNITED STATES PATENT OFFICE.

WILLIAM J. McKELVY, OF SOUTH PITTSBURG, TENNESSEE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 575,972, dated January 26, 1897.

Application filed April 25, 1896. Serial No. 589,095. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. McKELVY, a citizen of the United States, residing at South Pittsburg, in the county of Marion and State of Tennessee, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

10 The object of the present invention is to improve the construction of twin-jaw car-couplings and to provide a simple, inexpensive, and efficient one capable of coupling automatically with all kinds of car-couplings of a similar type and adapted to be readily uncoupled without going between cars.

20 A further object of the invention is to provide a self-opening knuckle which will be securely locked and absolutely held against accidental opening.

Another object of the invention is to provide a car-coupling which will be adapted to be set for uncoupling, and which will automatically uncouple as the cars are separated.

25 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 claim hereto appended.

30 In the drawings, Figure 1 is a perspective view of a car-coupling constructed in accordance with this invention. Fig. 2 is a horizontal sectional view. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of the knuckle. Fig. 5 is a similar view of the pivoted catch.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

40 1 designates a draw-head of the Janney type, having a knuckle 2 pivoted to one side of it, and the latter is locked in its closed position by a transversely-disposed catch 3, pivoted at one end to the top of the draw-head adjacent to one side thereof and adapted to swing downward at an inclination, as illustrated in Fig. 3 of the accompanying drawings, to engage the arm of the knuckle. The arm of the knuckle is provided at its end with a smooth beveled rear or end face 4, arranged at the corner of the arm and adapted when the knuckle is closed to engage the lower edge

of the pivoted catch, whereby the same is automatically lifted. The end of the arm is provided at its front or outer side with an inclined face 5, which is corrugated to interlock with the engaging end 6 of the pivoted catch. The engaging end of the pivoted catch is corrugated similar to the inclined face 5 of the arm of the knuckle, and the parts interlock and absolutely prevent any liability of the catch being accidentally thrown outward and releasing the knuckle.

When the catch is swung upward by means hereinafter described, the knuckle is automatically opened by a flat spring 7, secured at its outer end to the arm of the knuckle at one side thereof and having its free end arranged to engage the adjacent side wall of the draw-head. The spring operates to swing the arm of the knuckle outward, and is adapted when the knuckle is closed to lie against the adjacent side of the draw-head without being injured.

The operation of uncoupling is effected by means of a rock-shaft 8, journaled in suitable bearings of a car 9, and provided with an outwardly-extending arm 10, which is arranged over the draw-head and which is connected with the pivoted catch by a spiral spring 11. The spring has its end secured to the arm of the rock-shaft, and its lower end is connected with the pivoted catch by a link-rod which passes through a perforation of the top of the draw-head. The outer end of the rock-shaft is provided with a handle. When two cars are coupled and it is desired to uncouple them, the arm of the rock-shaft is swung upward and the catch is lifted if there be no pressure on the knuckle; but if any pressure be exerted on the knuckle its arm will frictionally engage the catch and be prevented, by the interlocking serrations or teeth, from swinging upward. The spring, however, will permit the arm of the rock-shaft to be swung upward, and the parts will be set for automatic uncoupling, and as soon as the knuckle is relieved of pressure the spring will draw the pivoted catch upward out of engagement with the arm of the knuckle and permit the latter to open. The rock-shaft may be extended, if desired, entirely across the car, and any suitable means may be provided for enabling it to be manipulated from the top of a car.

It will be seen that the car-coupling is exceedingly simple and inexpensive in construction, that it is positive and reliable in operation, and that the knuckle is securely locked in its closed position and is prevented from accidentally opening. It will also be apparent that the parts may be set for uncoupling and that the spiral spring will swing the pivoted catch upward as soon as the catch is free to move.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

In a car-coupling, the combination of a draw-head, a knuckle pivoted to the draw-

head and provided on its arm with a series of serrations or teeth, and a pivoted catch mounted in the draw-head, engaging the arm of the knuckle and provided with similar serrations or teeth, whereby the catch is interlocked with the arm and is prevented from being accidentally thrown upward and releasing the knuckle, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM J. McKELVY.

Witnesses:

C. H. COOK,
J. BRIGHT.