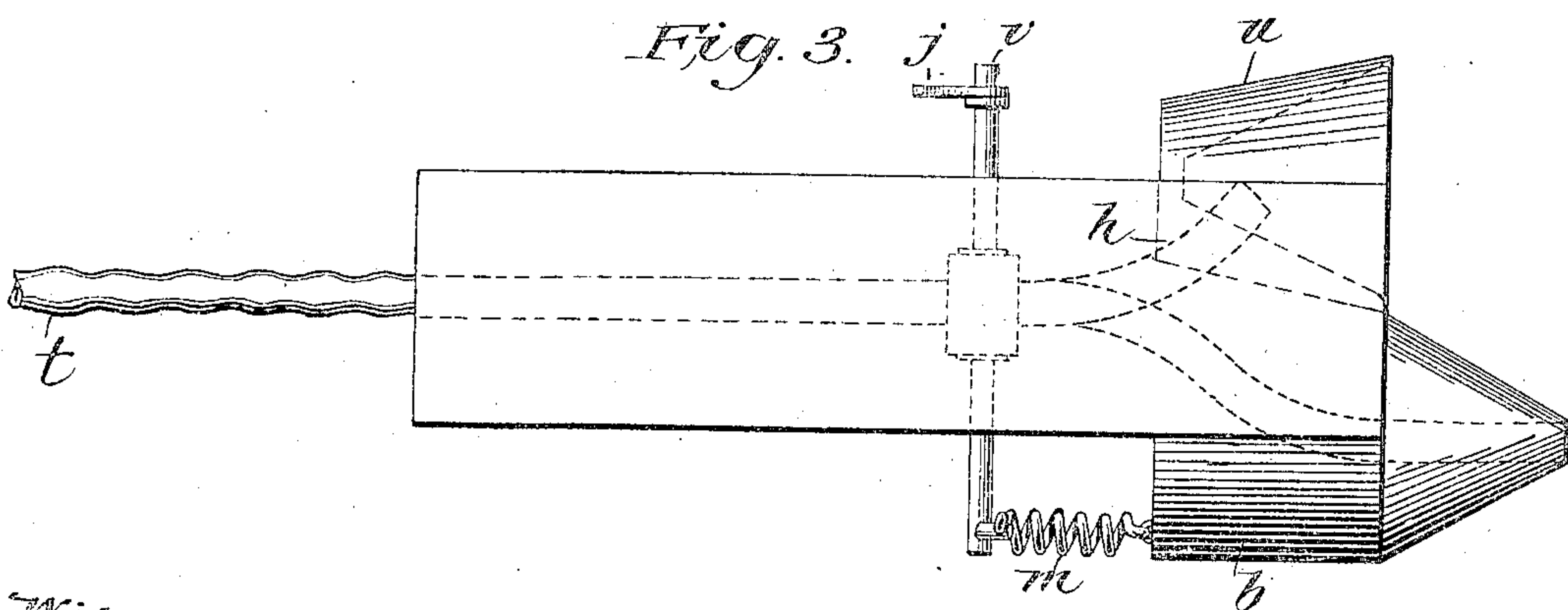
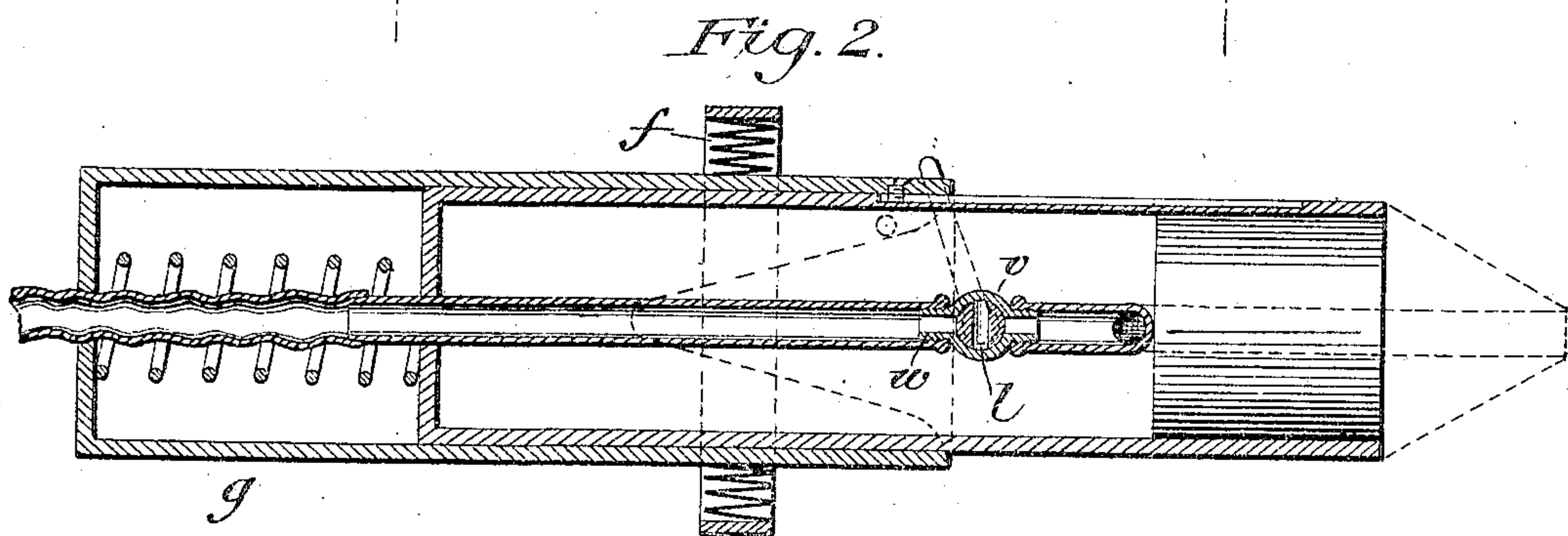
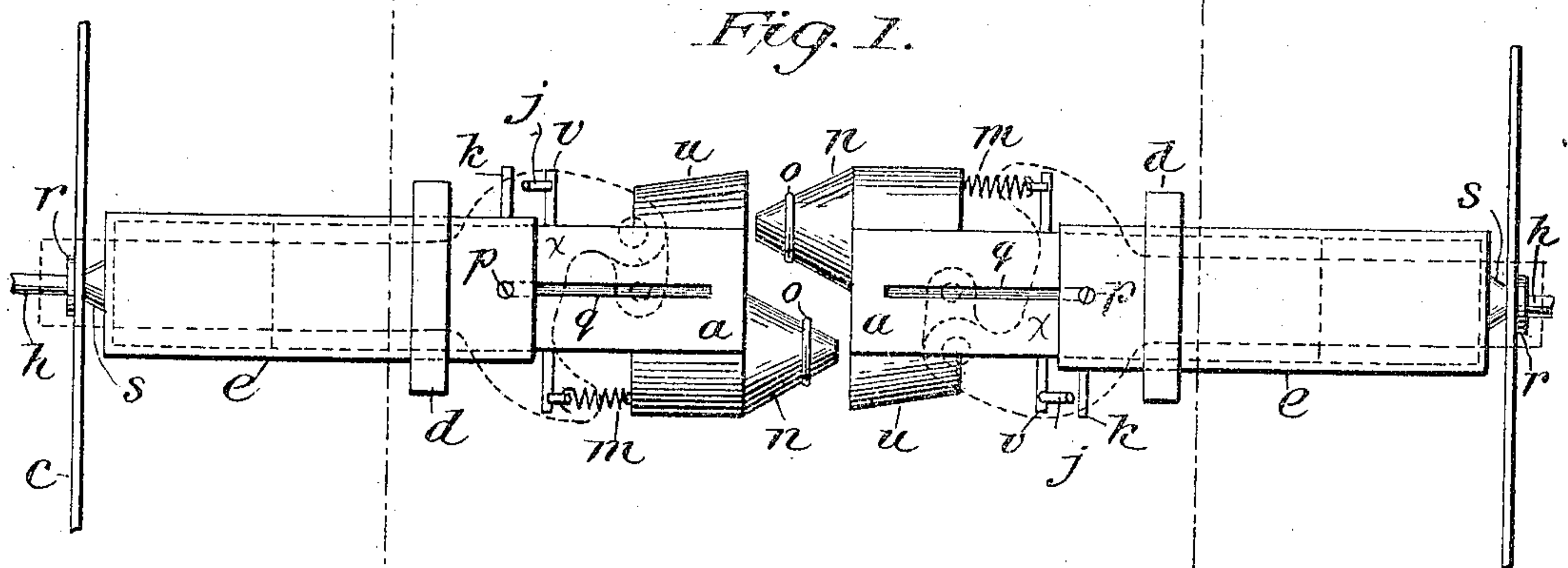


No. 813,390.

PATENTED FEB. 20, 1906.

H. H. SARTAIN.  
AIR BRAKE COUPLING.  
APPLICATION FILED JUNE 17, 1903.



Witnesses:  
Thomas P. Northcutt.  
James Hughes Christcut

Inventor:  
Heraclitus Harrison Sartain.



# UNITED STATES PATENT OFFICE.

HERACLITUS HARRISON SARTAIN, OF BURROUGHS COVE, TENNESSEE.

## AIR-BRAKE COUPLING.

No. 813,390.

Specification of Letters Patent.

Patented Feb. 20, 1906.

Application filed June 17, 1903. Serial No. 161,881.

*To all whom it may concern:*

Be it known that I, HERACLITUS HARRISON SARTAIN, a citizen of the United States, residing in Burroughs Cove, in the county of Grundy and State of Tennessee, have invented new and useful Improvements in Air-Brake Couplings, of which the following is a specification.

My invention relates to air-brake couplings; and the object of the same is to produce a device of this character which will be simple in construction and efficient in operation, and one which will not be injured by the cars pulling apart, but at the same time will be air-tight and perfectly automatic, not requiring to be coupled by hand.

With this end in view I have designed the simple and novel construction which is fully described in this specification, claimed, and illustrated in the accompanying drawings, forming a part thereof, in which—

Figure 1 is a plan view of my complete device attached to two cars, which are shown in part. Fig. 2 is a box, showing the spring at hind part of box inside, and shows the two springs on each side of box, and shows the inside of valve and how it works. Fig. 3 is a square piece, showing the air-tube and how it goes through the funnel-shaped piece and horn-shaped piece, the valve and spring to pull it back when turned over by pin on the end of valve when it strikes against pin in box, and shows rubber pipe attached to one end used as slack when said square piece is put in box and pushed back against spring.

Like letters of reference designate like parts in the different views of the drawings.

The coupler-heads are alike and to letter one answers for both. Fig. 1 designates cars each equipped with members *a* of my coupling. These cars have an ordinary form of coupling *x*, which my coupling-heads *a* swing underneath of same, and is connected to bottom face of cars, and a band of iron which goes around box *e* and is fastened to under side of cars, and at the rear part of box *e* there is a piece *c* fastened to under side of cars, and an air-pipe *h* goes through, which supports the coupler-heads *a*. Said coupler-heads are made alike with a funnel-shaped piece *u* and a horn-shaped piece *n* with a ring of rubber *o* around horn-shaped piece *n*, so when the two coupler-heads *a* come together and the horn-shaped piece goes into funnel-shaped piece and comes against coupler-heads *a*, they close up and make an air-

tight joint, and the air passes through both of said pieces, and a screw *p* is screwed in box *e* near the front end and goes through and into slot *q*, that is put into coupler-heads *a*, and the lower end of screw slides back and forth in slot, so as to keep the coupler-heads from coming out of box *e* when the cars are apart.

A band of iron *d* is put around box *e*, so as to hold four springs *f*, as at Fig. 2, one on each side of box *e*. If the coupler-heads do not strike center, they give to suit coupler-heads *a*. At Fig. 2 is a spring *g* in box *e*, which is loosely mounted on the air-pipe *h* and butts against the end of coupler-heads *a* and against the end of box *e*, inside of box *e*, so as to make a tight joint, and piece *s* is put on box *e* and goes through piece *c*. The air-pipe passes through said piece and a nut or tap *r* is screwed on air-pipe, so when said tap is pushed back from piece *c* said tap is used for a stop as it comes back against piece *c*.

When the cars are uncoupled, so as to keep box *e* in place, a piece of rubber piping *t* is put on air-pipe *h* to give slack. Valve *v* is placed in coupler-heads *a* near front end of box *e* with a pin at end of valve *v* to come against a pin *k*, that is put in box *e*, so when the coupler-heads *a* are pushed back in box *e* the valve *v* is turned over and opens the air-tube *h*, so when the cars are pulled apart the valve closes by means of a spring *m*, attached to the opposite end of valve *v*. To close it, one end of said spring that is fastened to valve *v*, and the other end is fastened to horn-shaped piece of coupler-heads *a*. Fig. 2 shows inside of valve *v*. It shows the way the valve turns in air-pipe. The hole *l* is now out of alignment with the air-pipe, but when turned over it opens the air-tube *w*, as shown. The valve is put through air-tube and a hole at *l* in valve *v*, so in this way it is closed.

When the valve is turned over, the hole in valve is in alinement with air-pipe *w*. Fig. 3 illustrates one of my coupler-heads *a* before it is put in box *e* and shows the way the air-pipe *h* goes through the funnel and horn shaped pieces, how valve *v* is fitted, and how lever *j* strikes pin *k* in box *e* when coupler-heads *a* are pushed back into box *e*. The valve is turned over. Spring *m* pulls said valve back when not coupled, and it shows the air-pipe *h* to be forked, so the air passes through horn-shaped piece *n* and funnel-shaped piece *u* when valve is open. I do not wish to be limited as to details of construction, as this may

be modified in many particulars without departing from the spirit of my invention.

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

5 In train-pipe couplings, the combination of square coupling members bars to receive said members and means to yieldingly fasten said bars at their rear ends to cars, means to  
10 keep said coupling-heads from coming out of said bars when cars are uncoupled, train-pipes passing through said coupling-heads and

bars, valves in said pipes and independent yielding means for holding said valves in position, and means for train-pipe yielding 15 when cars are coupled, substantially as described.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

HERACLITUS HARRISON SARTAIN.

Witnesses:

JOHN SCRUGGS,  
W. B. ELLISON.