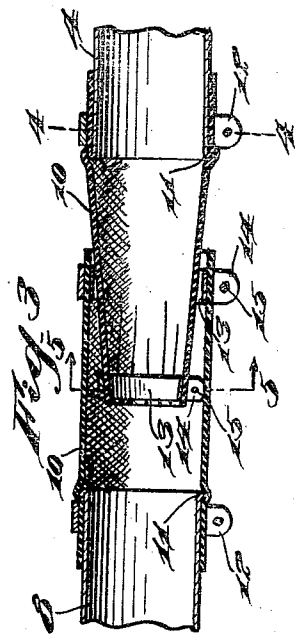
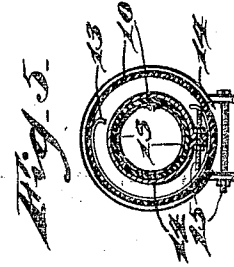
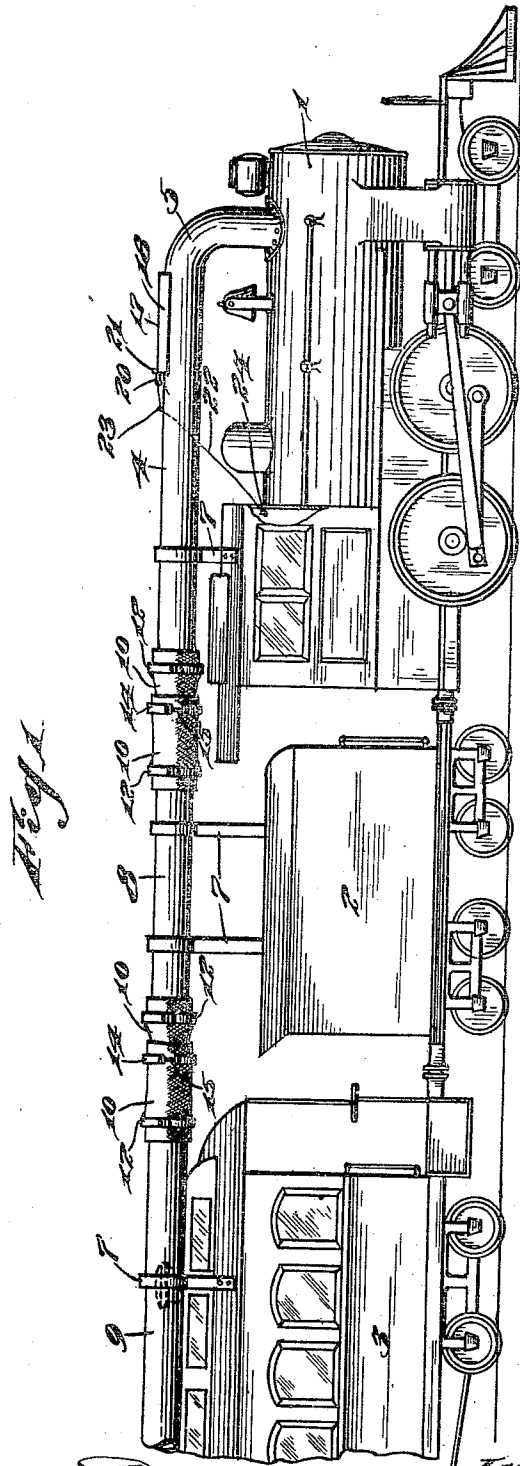


A. MAY.
 SMOKE CONVEYING ATTACHMENT FOR RAILWAY TRAINS.
 APPLICATION FILED JAN. 15, 1910.

959,777.

Patented May 31, 1910.

2 SHEETS—SHEET 1.



Witnesses
 J. H. Remann
 R. H. Brenkel

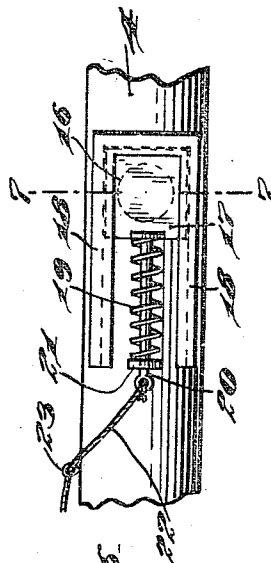
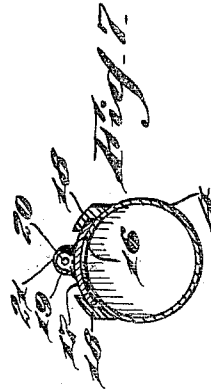
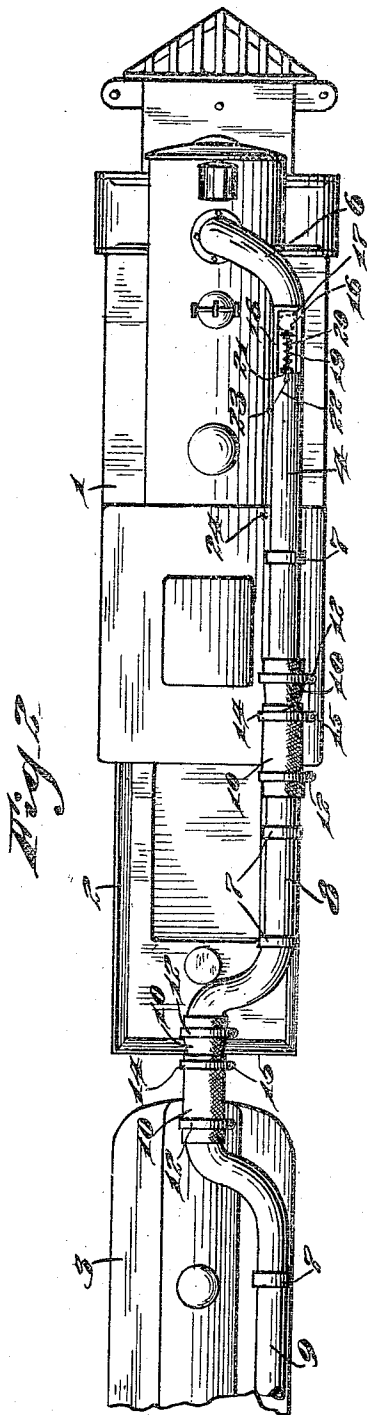
Inventor
 Allen May
 By John R. N. H. Attorney

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2 SHEETS—SHEET 2.



Witnesses
 Thos. R. Remond.
 R. H. Kenkel.

Inventor
 Allen May,
 By Joshua R. N. Foster,
 Attorney

UNITED STATES PATENT OFFICE.

ALLEN MAY, OF PHILADELPHIA, PENNSYLVANIA.

SMOKE-CONVEYING ATTACHMENT FOR RAILWAY-TRAINS.

959,777.

Specification of Letters Patent. Patented May 31, 1910.

Application filed January 15, 1910. Serial No. 538,202.

To all whom it may concern:

Be it known that I, ALLEN MAY, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Smoke-Conveying Attachments for Railway-Trains, of which the following is a specification.

My invention relates to improvements in smoke conveying attachments for railway trains, the object of the invention being to provide an attachment of this character, which will convey the smoke from the locomotive back to the rear end of the train and discharge it behind the rear car.

A further object is to provide the locomotive, tender and all of the cars with sections of smoke conveying pipes, and provide improved couplings, which telescope one within the other, and enable the pipe sections to be coupled, when the ordinary car couplings are coupled and without the necessity for handling the couplings.

A further object is to provide improved couplings of this character, which may be adjusted so as to enable either of the couplings to be inserted within the other in accordance with the way the cars are positioned, relative to each other.

With these and other objects in view, the invention consists in certain novel features of construction, and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1, is a view in side elevation illustrating my improvements. Fig. 2, is a top plan view of Fig. 1. Fig. 3, is an enlarged view in longitudinal section through one of the pipe couplings. Fig. 4, is a view in cross section on the line 4—4 of Fig. 3. Fig. 5, is a view in cross section on the line 5—5 of Fig. 3. Fig. 6, is a plan view illustrating the valve or gate 17, and Fig. 7, is a view in section on the line 7—7 of Fig. 6.

1 represents a locomotive, 2 a tender, and 3 a car.

4 represents a smoke conveying pipe, which is secured to the top of the locomotive above the smoke box, and extends upward for a short distance, then curves as illustrated at 5; then extends laterally as shown at 6; and then extends rearward along and above one side of the locomotive,

and has a support 7. This pipe 4 takes the place of the ordinary smoke stack, and smoke issuing from the locomotive passes up through this pipe and rearward through the same, and through similar pipes 8 and 9 on the tender 2 and car 3 respectively, as will hereinafter appear.

Referring particularly to Fig. 2, it will be noted, that the pipe 8 above tender 2 extends along one side of the tender, so as not to interfere with the loading of the latter, and then curves to the center of the tender at its rear end, so that the end of the pipe 8 is at the center of the tender.

The pipe 9 on the car is located at one side of the car, but at the ends of the car curves to the center of the car, so as to be in line with the end of pipe 8. Each pipe 4, 8 and 9 is provided with a hose coupling member 10. These coupling members 10 are preferably of reinforced flexible material, asbestos lined, and the ends of the tubes are made with annular flanges 11, over which the coupling members 10 are secured by means of split clamps 12.

The free ends of the coupling members are provided internally with curved springs 13, which tend to expand the coupling members to their fullest diameter. Around the outside of the free ends of these members 10, split clamps 14 are located, and are provided with adjusting bolts 15, so that by turning the nuts on these adjusting bolts 15, the tension of spring 13 is overcome, and the end of the coupling member contracted. This is desirable, for it often happens that a car is turned so that both of the larger or smaller ended coupling members 10 come together, in which case, it is necessary for an employee to climb to the top of the car and reduce the diameter of the coupling member 10 on the forward car, as it will be noted that the forward coupling members on the cars, tender, locomotive, etc., are all smaller in diameter, so as not to have any escape of smoke at the couplings. In fact, it is a desirable feature to have a little space between the couplings, so that air can freely enter and be sucked up by the rapidly moving train, so as to increase the draft and suction through the smoke pipes, and insure a good draft on the locomotive and the carrying of the smoke to the rear end of the train.

Various slight changes might be made in the general form and arrangement of parts described without departing from my in-

vention, and hence I do not restrict myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the claims.

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

1. The combination with pipes adapted to be carried by movable members, of a coupling connecting the ends of said pipes, said coupling comprising two members, and means for adjusting the diameter of said coupling members at their free ends, whereby either member may be positioned inside the other, substantially as described.

2. The combination with pipes adapted to be carried by movable members, of a coupling connecting the ends of said pipes and comprising two members, devices at the free

ends of both of said members for contracting said members, and other devices at the free ends of said members for expanding said members, substantially as described.

3. The combination with pipes adapted to be carried by movable members, of a coupling connecting the ends of said pipes, said coupling comprising two members, each member consisting of a flexible tube, clamps securing said tubes around the smoke pipes, a spring inside of each tube at its free end, and a clamp around the outside of each tube at its free end, substantially as described.

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

ALLEN MAY.

Witnesses:

R. H. KRENKEL,
C. E. POTTS.