

R. T. GREENLEAF.

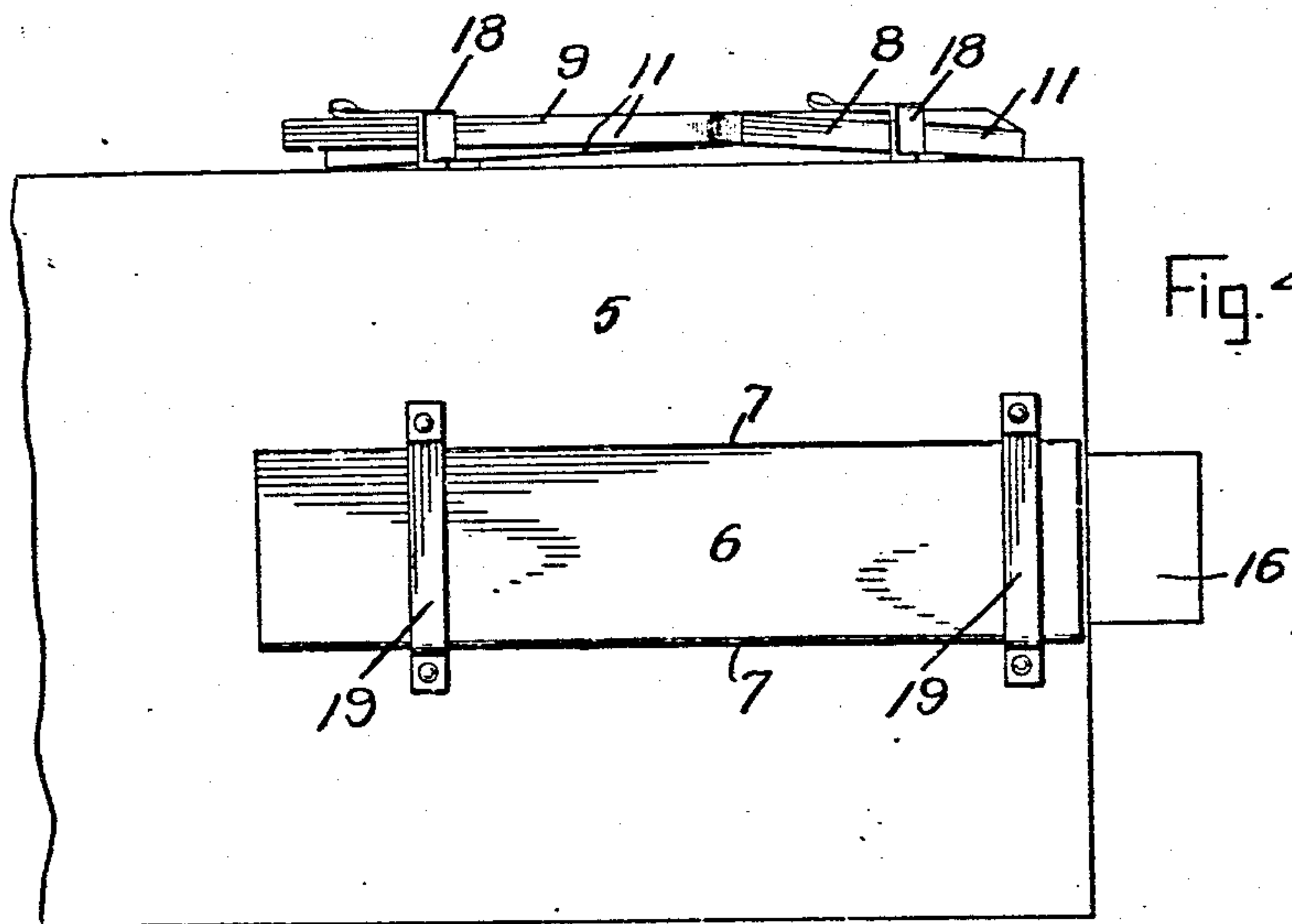
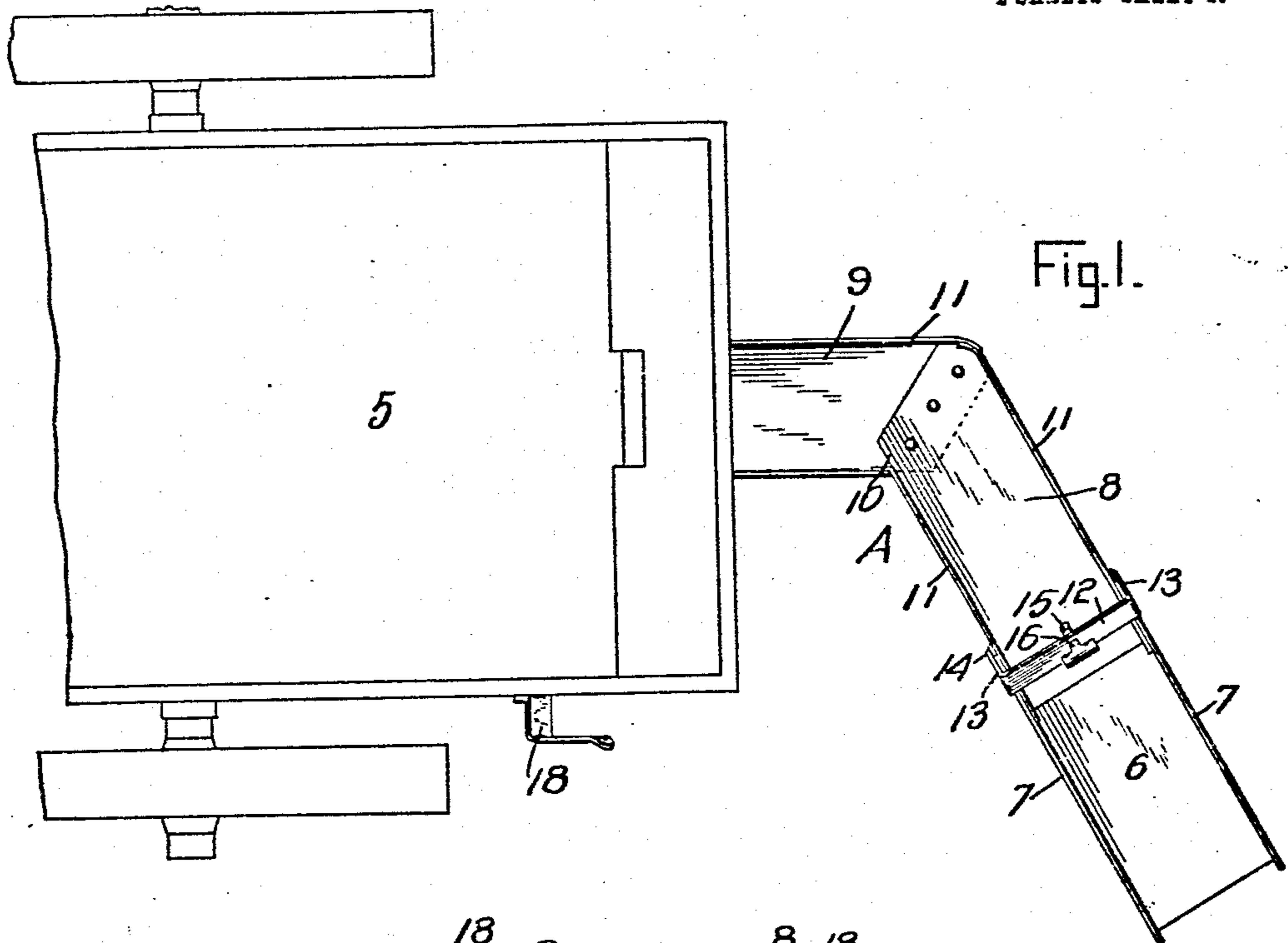
COAL CHUTE.

APPLICATION FILED OCT. 19, 1907..

Patented Sept. 15, 1908.

2 SHEETS-SHEET 1.

898,977.



Witnesses

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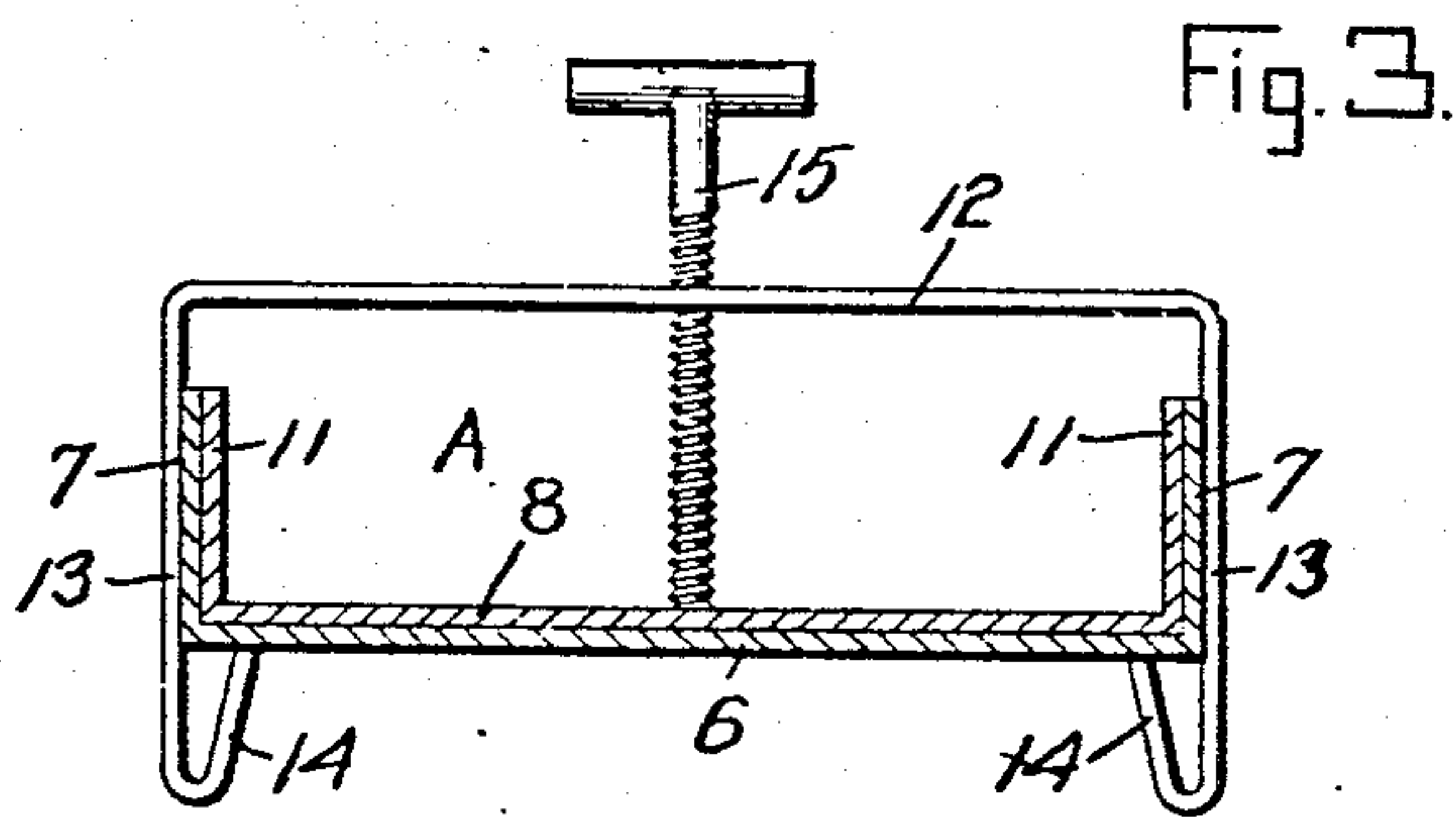
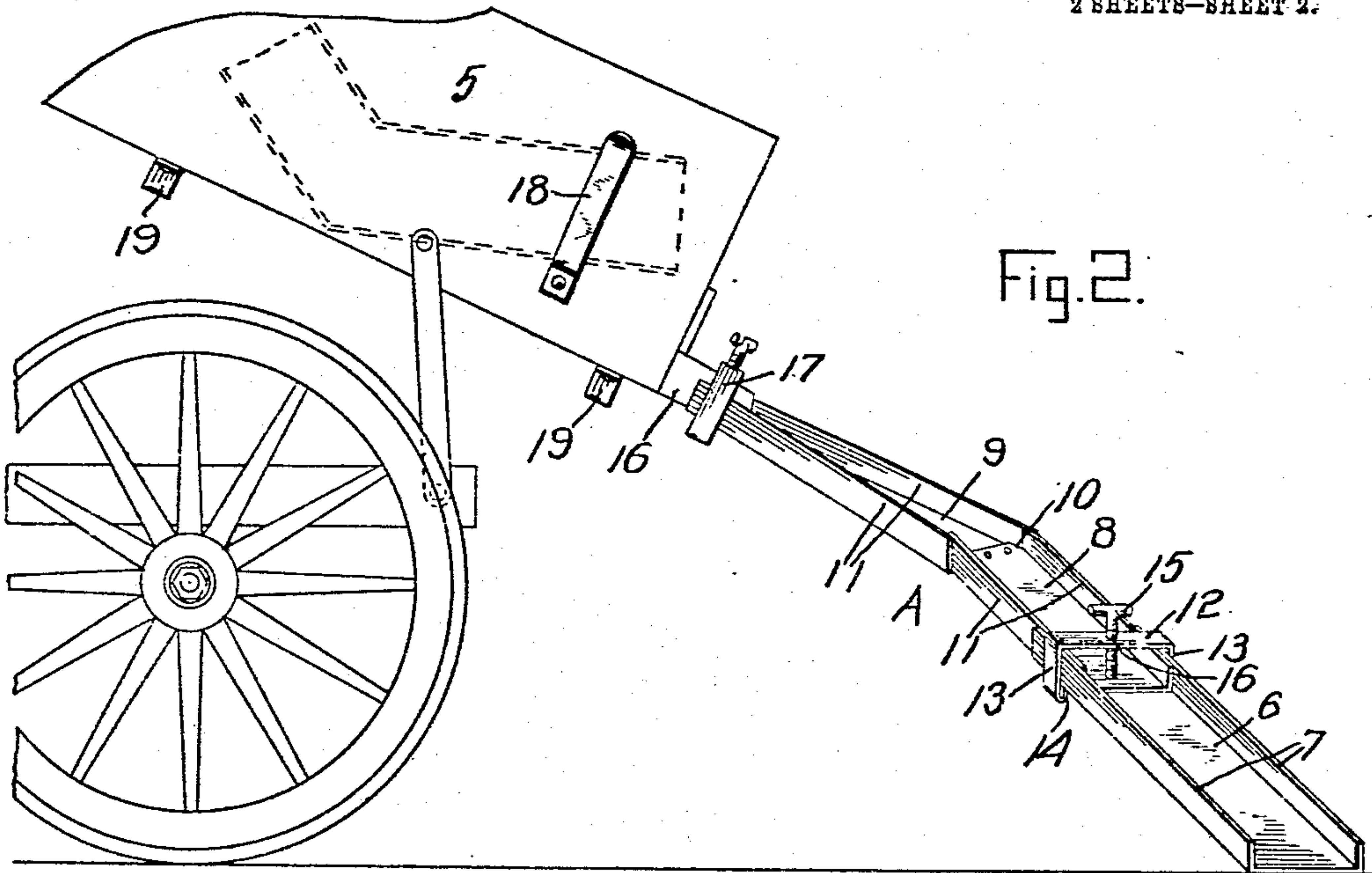
Attorneys

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# UNITED STATES PATENT OFFICE.

ROBERT T. GREENLEAF, OF PHILADELPHIA, PENNSYLVANIA.

## COAL-CHUTE.

No. 898,977.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed October 19, 1907. Serial No. 398,239.

*To all whom it may concern:*

Be it known that I, ROBERT T. GREENLEAF, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Coal-Chutes; 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.

This invention relates to coal chutes and more particularly to that class which are designed for use in connection with coal carts or wagons for the purpose of chuting coal from the cart or wagon into a cellar or bin. Heretofore such chutes have been so constructed that it is necessary for the driver of the cart or wagon to back the same to position against the curb and then discharge the coal but in cities having narrow streets this method of unloading the coal invariably results in a blockade of at least one side of the street. It is of course customary, after having backed the wagon into position against the curb to turn the horse or horses to one side but very little advantage is gained by doing this as such wagons are, as a usual thing, longer than they are broad.

It is therefore the primary object of my invention to overcome the disadvantages of the present chutes by providing a chute of such character that the wagon in connection with which it is used, may be driven up to the curb in the usual manner and the coal discharged therefrom without the necessity of backing the wagon or in any way adjusting it as regards position.

Broadly stated, the chute embodied in my invention comprises a curved section and one or more straight sections, these sections being telescopically connected. One end of one of the straight sections is connected with the wagon in the usual manner and the curved section may be engaged at either of its ends in the straight section, it being understood that in this manner, the coal may be delivered either to the right or to the left of the wagon.

In the accompanying drawings, Figure 1 is a top plan view of the chute applied to a coal wagon, Fig. 2 is a side elevation of the chute and the rear end portion of the wagon, Fig. 3 is a detail vertical transverse sectional view through the chute, and, Fig. 4 is a bottom plan view of the wagon showing the manner

in which the chute sections are supported thereon.

In the drawings there is shown a coal wagon which is indicated by the numeral 5 and the chute embodied in my invention which is indicated in general by the reference character A.

The construction of the chute will first be described and the manner of attaching it to the coal wagon will be subsequently described. The chute in itself, comprises a straight section which is of the usual construction, being comprised of a plate 6 provided along its longitudinal edges with flanges 7 and the chute further comprises a curved section which is made up of a pair of plates one indicated by the numeral 8 and the other by the numeral 9. One end of each of these plates 8 and 9 is cut at an angle as indicated at 10 and the angularly cut end of the plate 8 overlaps the corresponding end of the plate 9 the two plates being riveted or otherwise secured together at the said ends. By cutting the ends of the plates at an angle and securing them together the plates are caused to extend at an angle with respect to each other and each of the plates is provided along its longitudinal edges with flanges 11, the flanges of the two plates being secured together at the connected ends of the plates. The ends of the curved chute sections thus formed are formed of such length that either one of them may be telescopically received in one end of the section 6 and in order that the sections when thus connected may be securely held in proper position, I have provided a clamp which will now be described.

The clamp mentioned above comprises a yoke including a body or connecting portion 12 and depending side portions 13 the ends of the latter portions being formed to extend at right angles to the portion 12 and having their end portions bent upwardly and inwardly at an angle as at 14 and engage the under side of the chute section 6, it being understood that the side portions 13 are spaced apart a distance equal to the width of the said chute section 6. A hand screw 15 is engaged through a threaded opening 16 in the connecting portion 12 of the clamp and the lower end of this hand screw is adapted to bear against the upper face of the curved chute section and may be tightened to draw upwardly upon the clamp and in this manner firmly draw the straight and curved chute sections together.



From the foregoing description of my invention it will be observed that the curved chute section may be engaged at either of its ends in the end of the straight section and  
5 adjusted to lengthen or shorten the chute and that furthermore when one end of the said curved section is so engaged the other end of the section will extend to the right, the converse being true when the other end  
10 of the section is engaged in the end of the straight section. In other words, the chute may be directed to extend either to the left or right of the wagon in connection with which it is used. The clamp, as will be  
15 readily understood, serves effectually to hold the straight and curved sections in connected and adjusted relation and by loosening the hand screw 15 the sections may be disengaged one from the other or adjusted to the  
20 proper degree.

Associated with the rear end of the coal wagon 5 is the usual short rearwardly extending chute 16 and when it is desired to use the two sections of chute embodied in my  
25 invention one end of the curved section is engaged with the said short chute and one end of the straight section engaged with the other end of the curved section as has heretofore been specifically described, the first  
30 mentioned end of the curved section being

connected and held in connected relation to the short chute 16 by means of a clamp 17 which is identical with the clamp heretofore described although it is to be understood that  
any other desired attaching means may be 35 employed. Upon one side of the coal wagon 5 there are provided brackets 18 which serve as a means whereby the curved section may be supported when not in use and the straight section is supported beneath the 40 wagon by means of the usual guides 19.

What is claimed, is—

A coal chute of the class described comprising a straight section, a curved section telescopically receivable at either of its ends 45 in the straight section, a clamp for holding the sections in connected relation, said clamp being of yoke formation and having portions arranged for engagement with the under side of one of the two sections, and a hand screw 50 threaded through the connecting portion of the clamp and arranged to bear upon the other of the two sections when the sections are in connected relation.

In testimony whereof, I affix my signature, 55 in presence of two witnesses.

ROBERT T. GREENLEAF.

Witnesses:

WILLIAM C. SCOTNEY,  
RALPH C. SCOTNEY.