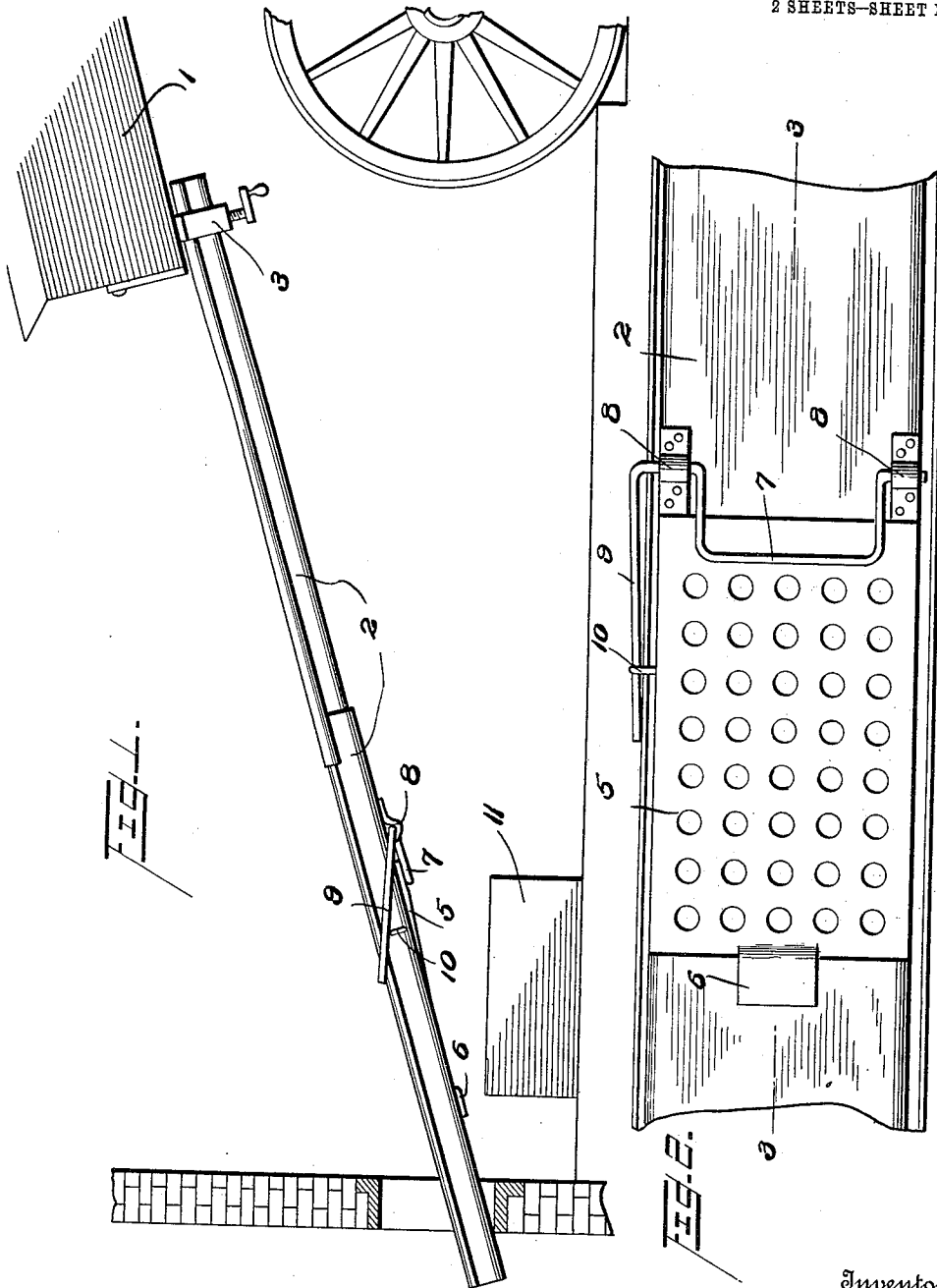


H. F. TYSON.
 SCREEN FOR COAL CHUTES.
 APPLICATION FILED JUNE 4, 1912.

1,055,499.

Patented Mar. 11, 1913.

2 SHEETS—SHEET 1.



Witnesses
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Horace F. Tyson

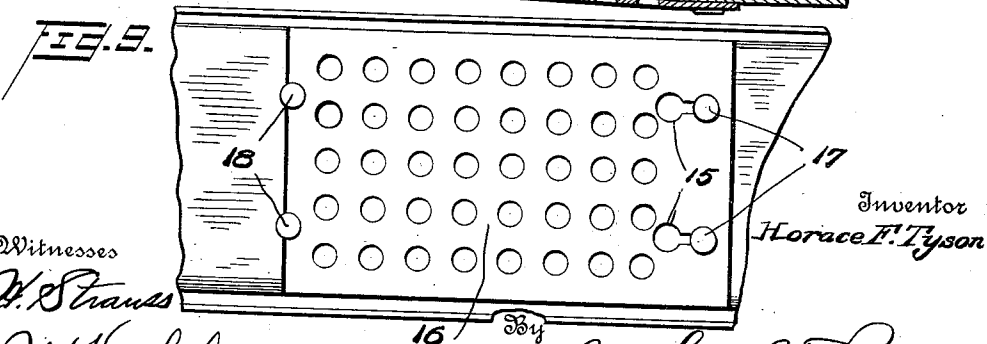
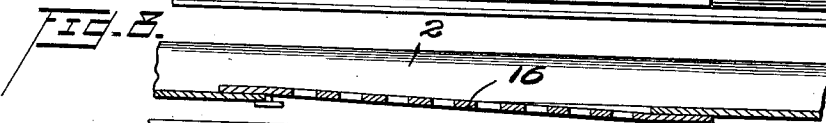
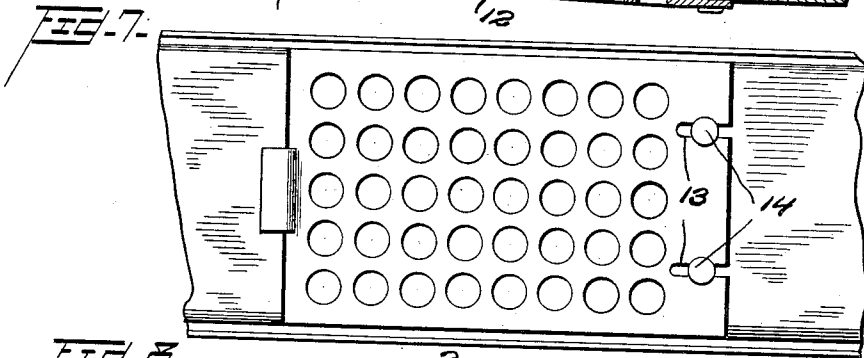
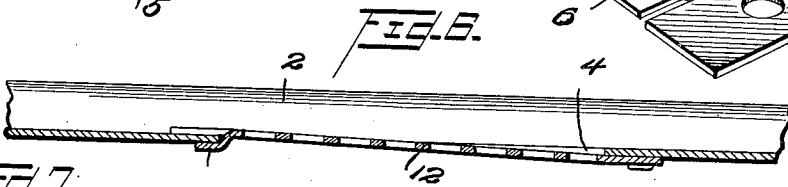
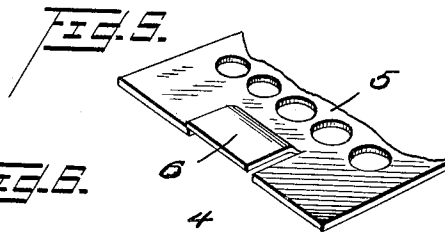
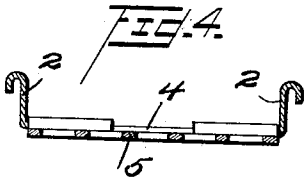
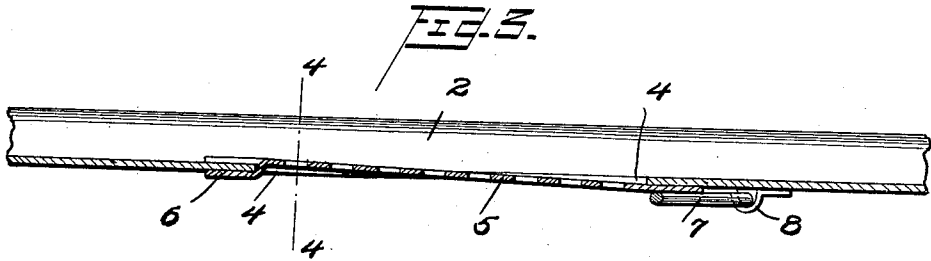
By *Joshua R. H. Otto*
 Attorney

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2 SHEETS—SHEET 2.



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SCREEN FOR COAL-CHUTES.

1,055,499.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Application filed June 4, 1912. Serial No. 701,478.

To all whom it may concern:

Be it known that I, HORACE F. TYSON, a citizen of the United States, residing at Barto, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Screens for Coal-Chutes, of which the following is a specification.

My invention relates to improvements in screens for coal chutes, the object of the invention being to provide a coal chute with improved removable screens in the bottom of said chute which enables the coal to be thoroughly screened as it is shot into a cellar.

A further object is to provide improvements of this character which enable the positioning of screens having different openings in the bottom of the coal chute in accordance with the kind of coal screened, and which will, at the point of delivery, screen the coal as it passes from the wagon into the cellar so that the purchaser has ocular proof that the coal is clean.

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 elevation illustrating the coal chute provided with my improvements and showing the same in operative position. Fig. 2, is a fragmentary view on an enlarged scale in bottom plan of the chute shown in Fig. 1. Fig. 3, is a view in longitudinal section on the line 3—3 of Fig. 2. Fig. 4, is a view in transverse section on the line 4—4 of Fig. 3. Fig. 5, is a fragmentary inverted perspective view of the lower end of the screen shown in Figs. 1, 2, 3, and 4. Fig. 6, is a view similar to Fig. 3, illustrating a modification. Fig. 7, is a bottom plan view of the modification illustrated in Fig. 6, and Figs. 8, and 9, are views similar to Figs. 6 and 7 illustrating another modification.

1, represents an ordinary coal wagon to which a telescoping sectional coal chute 2 is adjustably secured by means of a clamp 3. It is, of course, to be understood that this invention is not limited to any particular manner of securing the chute, nor to its particular use, but is drawn to cover any chute

of this character which may be used for the purpose of screening.

One section of the chute 2 is provided in its bottom with an opening 4 of any desired length. This opening preferably is of the entire width of the bottom, and is normally closed by a screen plate 5. The screen plate 5 is of greater length than the opening, and in the form illustrated in Figs. 1, 2, 3, 4, and 5, the lower end of this screen plate is slit longitudinally forming a tongue 6. This tongue is positioned against the rear face of the chute bottom, while the end portions of the screen plate at opposite sides of said tongue, are positioned against the outer face of the chute bottom as illustrated in Figs. 2, and 3. This tongue limits the movement of the screen plate in one direction, and a crank shaft 7 secures the upper end of the screen plate against the lower face of the chute bottom. This crank shaft 7 is of spring wire having its journals mounted in bearings 8 fixed to the chute bottom, and its U-shaped crank member held against the screen bottom by a crank arm 9, which latter is sprung over a lug 10 on the side of the chute. The screen plate may be readily removed by releasing the crank arm 9 from engagement over lug 10, when the upper end of the screen plate will be released, and the latter may be drawn longitudinally from the opening 4.

It is to be understood, of course, that screen plates having various sizes of perforations will be provided in accordance with the character of the coal to be screened. As seen in Fig. 1, this screening of the coal takes place at the house or place of dump, so that the purchaser may see the coal screened as it passes into his possession, and any ordinary box 11 may be provided below the screen to catch the dirt, but of course, this dirt may be cared for in other ways without departing from the invention.

In the modification illustrated in Figs. 6 and 7, crank shaft 7 is dispensed with and the screen plate 12 is provided in its upper end with slots 13 to receive the shanks of headed studs 14 on the bottom of the chute. To place this screen in position, it is necessary to enter the slots on the shanks of the studs, and force the screen plate along the bottom of the chute until the lower end of the screen plate may be inserted through the

opening in the bottom of the chute, and then when said chute is moved downwardly, the tongue 6 will limit such downward movement, and the screen will be securely held.

Another modification is illustrated in Figs. 8, and 9, in which key-hole shaped slots 15 are provided in the screened plate 16 to receive headed studs 17, and the downward movement of the lower end of the screen plate is limited by headed studs 18 fixed to the screen plate.

It will thus be noted that the screen plate and chute are so connected that the screens may be quickly connected and disconnected, so that screens having the desired perforations may be located in the chute.

Various other slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not limit 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 appended claims.

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

1. A chute comprising a bottom having upwardly projecting sides at the edges of the bottom, said bottom having an opening therein of the entire width of the bottom, a screen of greater length than the opening in the bottom and of slightly less width than said opening, said screen positioned with its upper end below the bottom and its lower end above the bottom, means on the screen engaging the lower wall of said opening preventing longitudinal movement of the screen in the opening, and means at the upper end of the screen removably securing

the screen to the lower face of the bottom, substantially as described.

2. A chute comprising a bottom and upwardly projecting sides at the edges of the bottom, said bottom having an opening therein, a removable perforated sheet metal screen plate of greater length than the opening in the bottom, and of slightly less width than said opening, said screen plate positioned with its upper end below the bottom and its lower end above the bottom, and means securing both ends of said screen plate against movement, substantially as described.

3. The combination with a chute having an opening in its bottom, of a perforated screen plate adapted to be positioned across said opening, one end of said screen plate having a tongue stamped therefrom and located in a different plane from the main portion of the screen plate, whereby said tongue is positioned on the lower face of the chute and the main portion of the plate at the end of the upper face of the chute, a crank shaft supported on the bottom of the chute and adapted to engage the upper end of the screen plate and hold the same against the bottom of the chute, an arm on said crank shaft, and a lug on the chute over which said arm is adapted to be positioned, whereby the screen plate is held against the chute, substantially as described.

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

HORACE F. TYSON.

Witnesses:

ELVA GRUBER,
W. S. MYERS.