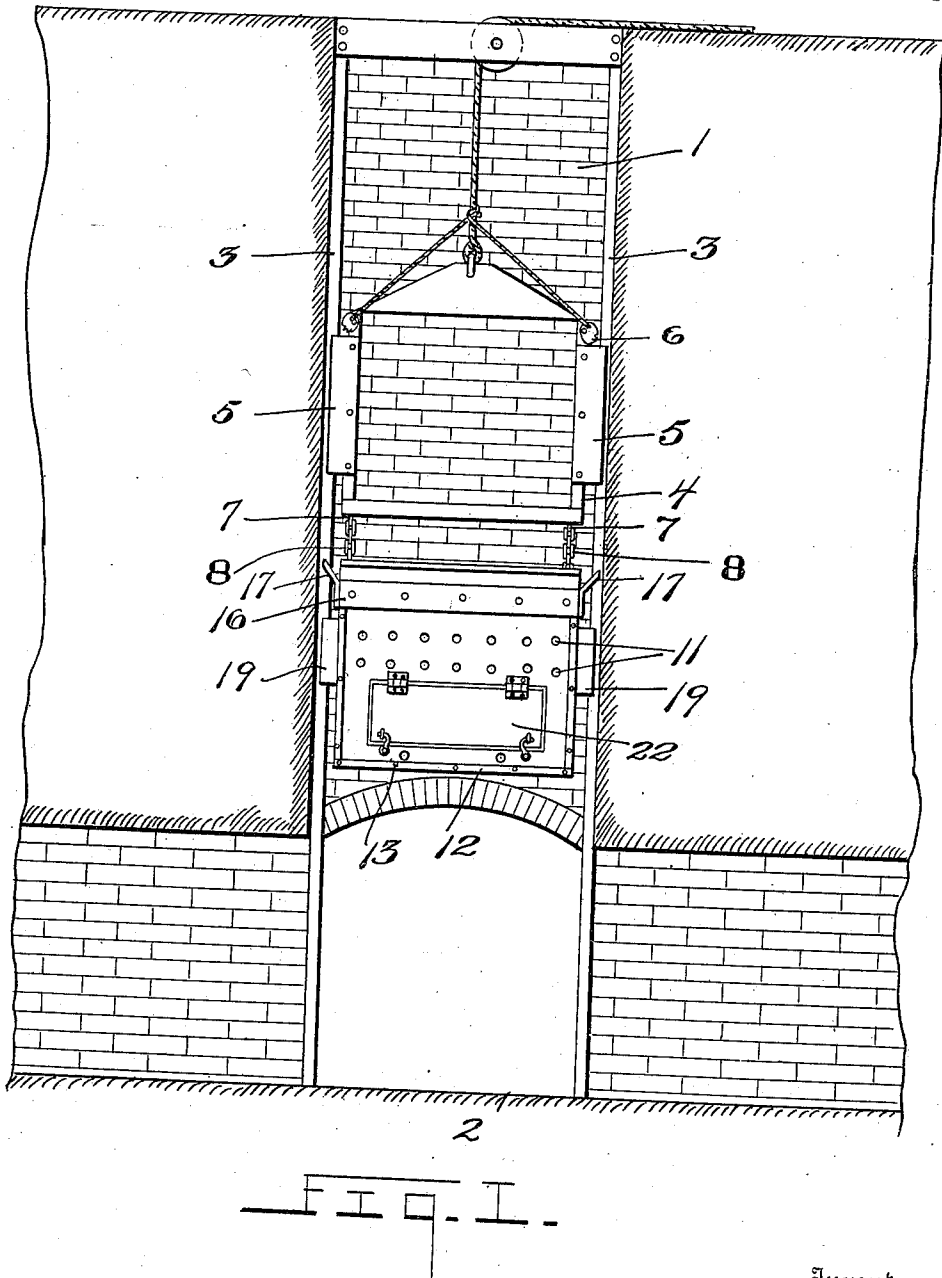


J. J. NARY.
 AUTOMATIC COAL SHAFT BASKET.
 APPLICATION FILED APR. 6, 1910.

995,892.

Patented June 20, 1911.

2 SHEETS—SHEET 1.



Witnesses

E. E. Johansen
 M. L. Lorr.

Inventor
 John J. Nary.

By Woodward & Chandler.

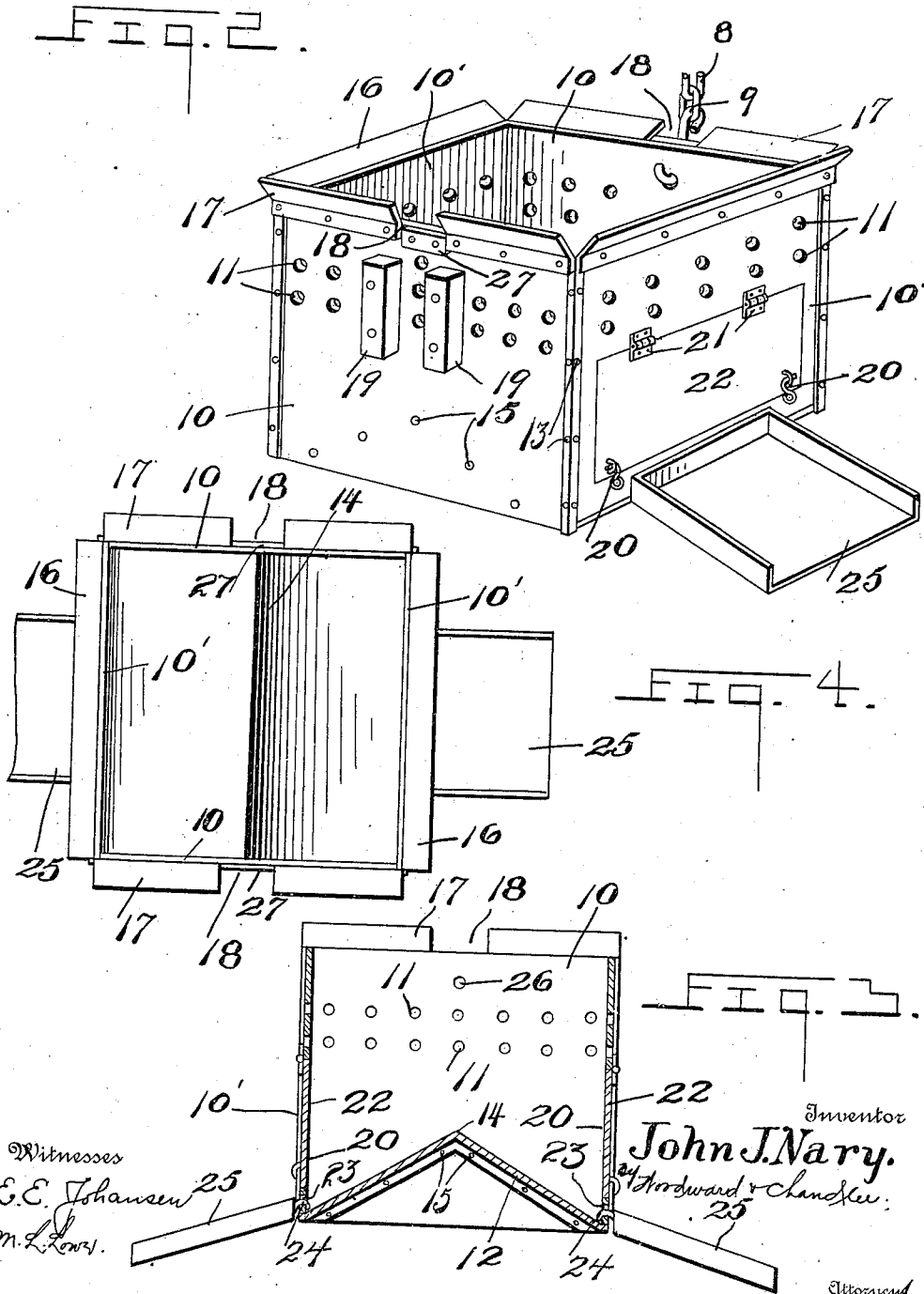
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UNITED STATES PATENT OFFICE.

JOHN J. NARY, OF HARRISBURG, ILLINOIS.

AUTOMATIC COAL-SHAFT BASKET.

995,892.

Specification of Letters Patent. Patented June 20, 1911.

Application filed April 6, 1910. Serial No. 553,885.

To all whom it may concern:

Be it known that I, JOHN J. NARY, a citizen of the United States, residing at Harrisburg, in the county of Saline and State of Illinois, have invented certain new and useful Improvements in Automatic Coal-Shaft Baskets, of which the following is a specification.

This invention relates to a basket adapted to be used in connection with mine cages and more particularly to coal mines.

One object of the present invention is to provide a device of the character above described, which is removably secured to the bottom of a mine cage, and adapted to catch the coal which drops from the cage and falls to the bottom of the shaft. This after a time fills up the bottom of the shaft and is cleaned away by hand.

Another object of this invention is to provide a device to be attached to the mine cage which when full may be conveniently dumped without its removal from the cage into the pit car.

Much time, labor and expense are saved by this device, as the dropping coal is collected by the basket and is dumped into the pit car in the mine, thus keeping the bottom of the shaft clean.

With these and other objects in view, the invention consists in the construction, combination and arrangement of the parts as will be more fully described hereinafter and particularly pointed out in the claim, but it will be understood that changes in the specific structure may be made within the scope of the claim without departing from the spirit of the invention.

In the accompanying drawings forming a part of this specification, and in which my invention is illustrated, Figure 1 is a vertical section through a mine shaft, showing a mine cage and my device applied thereto, Fig. 2 is a perspective view of the basket, and Fig. 3 is a vertical section through the basket, Fig. 4 is a top plan view of the basket.

Referring now more particularly to the drawing in which I have shown the preferred embodiment of my invention, 1 is the mine shaft, 2 the bottom thereof, and 3 the side guides for the cage 4. The cage is of the usual construction and provided with the guide engaging members 5, and the safety device 6. Secured to the sides of the cage

and near the bottom thereof are the eyes 7, to which are attached the links 8, having the hooks 9.

The basket comprises the rectangular metallic receptacle having the side members 10, which are provided with the double row of perforations 11. The sides 10, 10' and the bottom 12 are all secured together by any suitable means such as the rivets 13. The bottom of the basket inclines from the center in opposite directions as at 14, and has its edges bent at an angle and riveted to the sides, as seen at 15.

Secured to the upper edges of the side members 10, by rivets, are the inclined or flaring lips or flanges 16, 17, which serve to keep the coal from running over the sides when full. Each of the flanges 17 is formed about midway of its length with an opening 18, through which the side guides of the shaft extend. Directly below the openings 18 and secured to the sides of the basket are the spaced outstanding flanges 19, which engage on either side of the side guides 3 of the shaft. These flanges keep the basket in vertical alinement under the cage.

Near the lower edges and below the perforations of the side members 10', are formed the dumping openings 20, and hung over these openings by the hinges 21 are the trap doors 22, which may be swung upward when the basket is to be emptied. Immediately below the openings 20 are punched holes 23, adapted to receive the hooks 24 on the chutes 25, down which the coal will slide when the doors 22 are opened for dumping. The perforations 11 are provided to allow the water from the coal to run out of the basket.

In the upper edges of the sides 10 and opposite the openings 18 are formed the openings 26 into which the hooks 9 are engaged when the basket is to be attached to the cage 4. Above each of the openings 26 I have riveted the wear plates 27, so as to protect the opening from the friction of the hooks.

In the ordinary operation of the mine cages in use at the present time, the coal is jarred over the cage, and drops to the bottom of the shaft. After a time the pile at the bottom of the shaft is considerable, and this has to be cleaned away by a man. Considerable water also collects with the coal, and produces a very unhealthy condition for the man who has to shovel away the pile.

Now, by means of my invention, the cage

is loaded, and sent up and down the shaft as usual. The basket is placed at the bottom of the pit, and being of a size somewhat greater than the bottom of the cage, and having the
5 flanges 16 and 17 extending outward, all, or approximately all of the coal which is jarred from the cage will fall into said basket. The coal, it is understood, is very wet and by means of the perforations 11, the greater
10 part of the water will leak out and drop to the bottom of the shaft. When full the basket is attached to the cage, lifted out of the pit by the cage until it is sufficiently high to be dumped into the pit car, by opening the
15 doors 22, which will let the coal run down the chutes 25. The doors 22 are provided with the latches 28, to secure them and prevent the escape of coal.

The chutes 25 may be permanently secured
20 to the cage, or only applied by the means shown in the drawing, and when the basket is to be dumped. The guiding openings 18 and the flanges 19, provide effectively for the retention of the basket directly, and at all
25 times beneath the cage.

From the foregoing it will readily be seen that I have provided a very simple and effi-

cient device, which will save the labor and expense of the cleaning of the bottom of the pit by hand, and also an effective means for
30 dumping the basket.

What is claimed is:

A receptacle for attachment to a mine cage comprising a rectangular body having openings in its sides above its middle line,
35 an inclined lip extending around the upper edge of the receptacle and having rectangular openings in two of its diametrically opposite sides, a bottom inclined downwardly
40 in opposite directions from the center, means on the receptacle whereby the same may be attached to the mine cage, guiding blocks between its opposite sides disposed below
45 and on either side of said rectangular openings, doors in opposite sides of the receptacle and at the lower ends of said inclined bottom, and detachable chutes secured to the sides below said doors.

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

JOHN J. NARY.

Witnesses:

DAVID W. DOVE,
IRA GIBBONS.