(No Model.)

S. B. DEXTER.

SLAG CAR.

No. 474,228. Patented May 3, 1892.

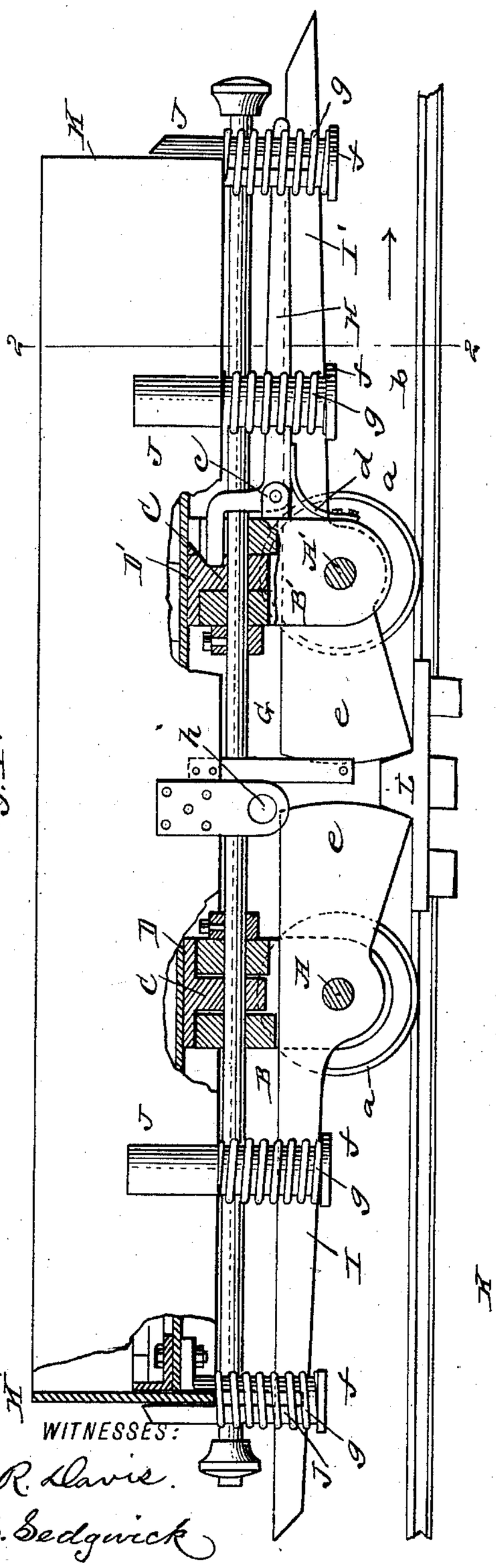

Fig. 1.

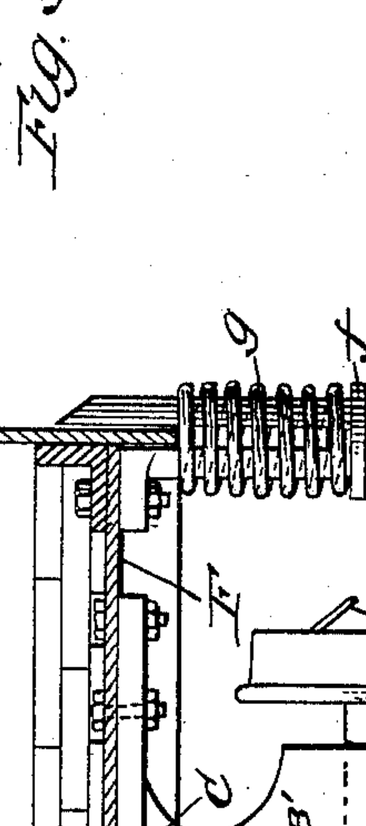

Fig. 3.

Fig. 2.

WITNESSES:

W. R. Davis.

C. Sedgwick

INVENTOR:

S. B. Dexter

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

SIMON B. DEXTER, OF GLENDALE, MONTANA.

SLAG-CAR.

SPECIFICATION forming part of Letters Patent No. 474,228, dated May 3, 1892.

Application filed August 20, 1890. Serial No. 362,512. (No model.)

To all whom it may concern:

Be it known that I, SIMON B. DEXTER, of Glendale, in the county of Beaver Head and State of Montana, have invented a new and Improved Slag-Car, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a side elevation, partly in section, of my improved slag-car. Fig. 2 is a vertical transverse section taken on line 2 2 in Fig. 1, and Fig. 3 is a detail side elevation of the catch for holding the car in an elevated position.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to provide a slag-car for use in connection with my improved ore-roasting furnace, described in my application, Serial No. 287,374, filed October 6, 1888.

My improved car is designed to be used in connection with an elevator, by means of which the track upon which it stands and the car are moved upward until the car sides and ends come into contact with the bottom of the furnace.

My invention consists in the combination, with the car-body, of spring-supported sides and ends adapted to contact with the bottom of the furnace as the car is elevated. The invention also further consists in locking-levers for holding the car securely in a central position.

The wheels *a* are attached to the axles A A′ and adapted to run on the track-rails *b*. To the axles are fitted the yokes B B′, the said axles being capable of turning in the yokes, and the upper portions of the yokes are slotted longitudinally to receive the ears C of the bolsters D D′, which are attached to the car-body F. A rod G passes through apertures in the yokes and in the ears and forms a pivot for the car-body. Between ears *c*, projecting from the rear yoke B′, is pivoted the angled lever H, the shorter arm of which projects through a hole in the yoke and is capable of entering a recess in the ear C of the bolster D′, so as to hold the car-body in a horizontal position. A spring *d*, attached to the yoke B′, presses the lever H into engagement with the bolster D′.

Upon the axles A A′ are fulcrumed the levers I I′, provided with the sector-shaped ends *e*, and which are oppositely arranged with respect to each other. The longer arms of the levers I I′ project beyond the ends of the car-body and are beveled in opposite directions, as shown. The slag-cars travel on a circular track, so that when an empty car approaches a filled car the engagement of the lever I of the full car by the lever I′ of the empty car tilts the lever I of the filled car, thus releasing it, allowing it to pass on by its own gravity, the track being inclined to admit of this action. The empty car follows the full car and takes its place under the furnace, where it is locked by the levers I I′, as before described.

To the car-body are attached the cylindrical supports J, which are slotted longitudinally to receive the side and end pieces K and K′. Each support J is furnished with a flange *f* at its lower end, upon which rests a spiral spring *g*, the said spiral spring *g* being sufficient to support the side and end pieces K and K′ in an elevated position when the said side and end pieces are not subjected to any pressure; but when the car is moved into its position underneath the furnace and then raised the side and end pieces K K′ yield, but are held in close contact with the bottom of the furnace by the springs *g*.

In the center of the platform by which the car is supported underneath the furnace is arranged a stop L, having beveled sides adapted to fit in the space between the sector-shaped ends *e* of the levers I I′. As the car is moved forward underneath the furnace—in the direction indicated by the arrow, for example—the sector-shaped end *e* of the lever I′ will engage the stop L and be elevated thereby, and will by its own gravity fall in behind the stop as soon as the sector-shaped end *e* of the lever I strikes the stop. By this arrangement the car will be held in a central position upon its support. After the car is filled the long arm of the lever I is pressed down, disengaging the sector-shaped end *e* from the stop L, thus allowing the car to pass along in

the same direction, when its place will be filled by another car.

To facilitate the dumping of the car, one or both of its sides is provided with an eye *h* for receiving a lever. The floor of the car is provided with a lining M of fire-brick for protecting the car against the intense heat of the slag.

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

1. The combination, with the wheeled axles having yokes and the car-body having transverse bolsters on its lower side provided with ears pivoted to the yoke to permit the body to dump laterally, one of the ears having a recess, of a longitudinally-extending angle-lever H, pivoted to one of the yokes, with its inner end engaging said recess to lock the body, substantially as set forth.

2. The combination, with a slag-car, of the locking-levers I I′ and the stop L, substantially as specified.

3. The combination, with the slag-car body, of spring-supported side and end pieces, substantially as specified.

4. The combination, with the car-body F, of the slotted cylindrical supports J, the springs *g*, and the movable side and end pieces K and K′, substantially as specified.

5. The combination, with the car, of the longitudinally-extending levers I I′, pivoted between their ends beneath the car, with their outer ends projecting beyond the ends of the car, the inner ends of the said levers being spaced apart and projected downward to engage a track projection and lock the car, substantially as shown and described.

6. A car comprising a main wheeled platform or bottom and an open-top body, within which the platform or bottom slides, substantially as set forth.

SIMON B. DEXTER.

Witnesses:
THOMAS H. TEAL,
GEO. B. CONWAY.