

(No Model.)

L. G. BEERS.
SCREEN.

No. 517,724.

Patented Apr. 3, 1894.

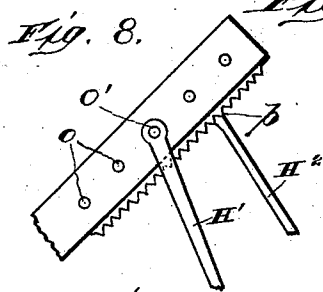
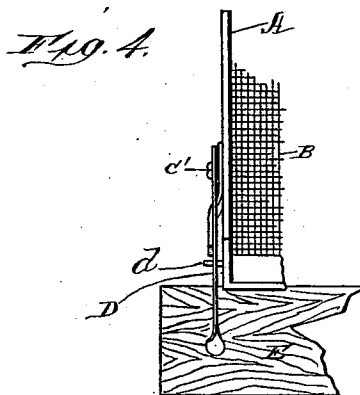
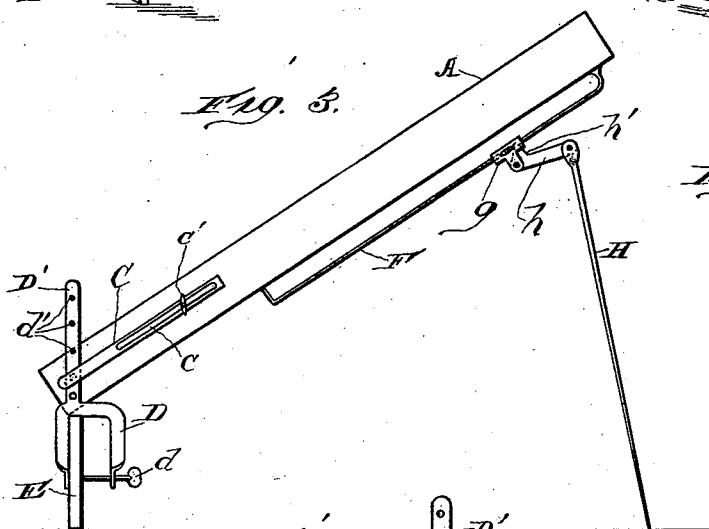
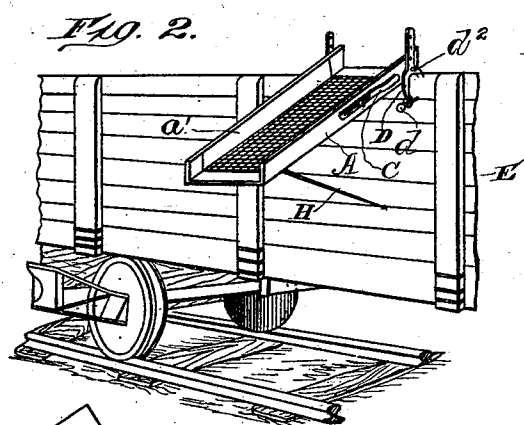
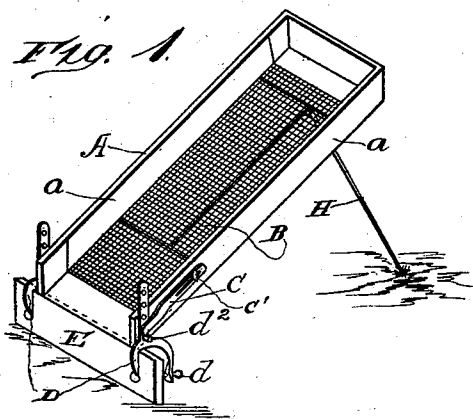


Fig. 5.

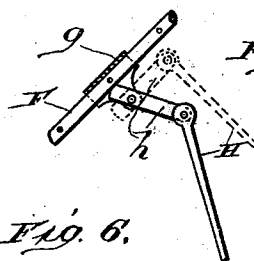
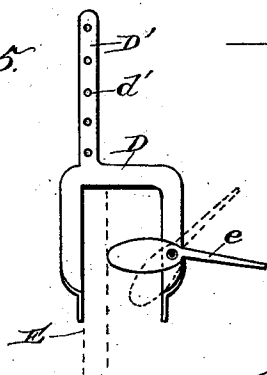


Fig. 6.



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UNITED STATES PATENT OFFICE.

LOUIS G. BEERS, OF CHICAGO, ILLINOIS.

SCREEN.

SPECIFICATION forming part of Letters Patent No. 517,724, dated April 3, 1894.

Application filed September 23, 1893. Serial No. 486,310. (No model.)

To all whom it may concern:

Be it known that I, LOUIS G. BEERS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Screens, of which the following is a specification.

This invention relates to improvements in screens, and it is more especially adapted to that class of screens used for coal, sand, gravel, and other purposes; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The objects of my invention are first to provide a screen, which shall be simple and inexpensive in construction, and is capable of being adjusted to any desired inclination; and second, such a screen which can be readily secured to the frame of a flat or coal-car or other suitable support, and its angle of inclination suitably adjusted, so that the sifting of the coal, sand, or gravel may be performed while loading a wagon from the car.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1, is a perspective view of my screen, as it appears when in position and ready for use. Fig. 2, is a similar view of a portion of a flat or coal-car, showing the screen attached thereto. Fig. 3, is a view in side elevation of Fig. 1. Fig. 4, is a view in front elevation of a portion of the screen, and the base-piece to which it is secured. Fig. 5, is a detail view of a modification in the construction of one of the securing clamps. Fig. 6, is a detail view of one of the side-braces detached from the screen. Fig. 7, is a detail view partly in section of the sliding-collar, a portion of the rod upon which it operates, and a part of the supporting staff or rod; and Fig. 8, is a side view of a portion of the screen-frame showing modifications in the manner of inclining the same.

Similar letters refer to like parts throughout the different views of the drawings.

A, represents the frame of a screen, which is made of any suitable size, form, and material,

but preferably of wood, and rect-angular in shape, as shown in the drawings, and is provided with a screening surface or body B, of the usual or preferred kind. Near the end of the frame A, the side-pieces *a*, thereof, are provided with adjustable brace-pieces C, which pieces are formed with longitudinal slots *c*, through which is inserted and operates a clamping-screw *c'*, for adjusting them longitudinally. The free ends of each of the brace-pieces C, are formed on their inner surfaces with lugs or pins *c*², to engage the uprights of the securing clamps D, which are attached by means of set-screws *d*, to a suitable base-piece E, or the side E', of a flat-car. The clamps D, are located at a suitable distance apart on the supporting-piece, and the end of the screen is placed between the uprights or standards D', thereof, which standards are provided with a number of openings *d'*, for the reception of a pin *d*², which engages with the side-pieces *a*, of the screen-frame, thus pivotally securing the end of the frame between the uprights. To the lower surface of the frame, and extending longitudinally and preferably centrally therewith, is secured a rod F, upon which is fitted a collar *g*, to which is pivotally secured an arm *h*, having a cam *h'*, to press against the rod F. To the lower end of the arm *h*, is hinged a supporting-rod or piece H, by moving which, either up or down on the rod F, the desired angle of inclination of the screen may be attained. When the proper pitch or angle is thus secured, the fixed end of the frame may be firmly braced between the uprights D, by placing the lugs or projections *c*², in the openings *d'*, of the standards. In order to permit of this adjustment, the braces C, are formed as shown in Figs. 1, and 6, with a slight outward curve, which allows the standards or uprights to be interposed between the side pieces of the frame, and the free ends of the braces. When the screen is designed to be used for a yard-screen, the end of the supporting staff or rod H, rests on the ground, as is shown in Figs. 1, and 3, and when the screen is to be used on a flat or coal-car, the end of said rod rests against the side of the car, as illustrated in Fig. 2, of the drawings.

In Fig. 5, I have shown a modification in

the construction of the securing clamps, in which instead of using the set-screws *d*, for attaching them to the base-piece or support, I use a cam-lever *e*, which is fulcrumed to one arm of the clamp, as is clearly shown in Fig. 5, when by pressing down on the outer end of said lever, the cam portion thereof will be brought into contact with the base or supporting-piece, and firmly retain them together.

Sometimes I may employ the constructions illustrated in Fig. 8, to adjust the inclination of the screen, which consists in either providing the side-pieces *a*, with a number of holes *o*, for the reception of a pin *o'*, which is passed through an eye in the supports *H'*, two of which are used in order to properly sustain the frame or forming the lower edges of the side-pieces with serrations or teeth *p*, to engage a suitable leg.

Sometimes I may form the rod *F*, with holes at suitable distances apart thereon, and secure the collar *g*, by means of a pin inserted through the holes in the said rod, and a like hole in the collar, or I may provide the collar with a thumb or set-screw of the ordinary kind, and secure it to the rod by tightening the same thereon. When the set-screw or pin is used, of course the cam on the arm *h*, may be dispensed with.

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

1. The combination with a screen, of a rod secured thereto and longitudinally therewith, a sliding collar on said rod, a supporting staff adjustably secured to the collar, a pair of

clamps having set-screws to secure them to a support, and upright standards having openings therein for engagement with the end of the screen frame, substantially as described.

2. In a screen the combination with the frame *A*, having the adjustable braces *C*, provided with lugs or pins *c'*, secured to the sides of the frame, of a rod secured longitudinally to the frame, a sliding collar on said rod, a supporting staff adjustably secured to the collar, a pair of clamps having upright standards provided with openings therein for engagement with the screen-frame, and having means for securing them to the support, substantially as described.

3. The combination with a screen of a support longitudinally adjustably attached thereto, a pair of clamps having upright standards provided with openings therein for engagement with the screen-frame, and having means for securing them to the support, substantially as described.

4. In a screen the combination with the frame *A*, having the adjustable braces *C*, provided with lugs or pins *c'*, secured to the sides of the frame, of the rod *F*, secured longitudinally to the frame, the sliding collar *g*, on said rod, the arm *h* fulcrumed to the collar and having a cam to engage the rod *F*, and the rod *H*, secured to the arm *h*, all constructed, arranged, and operating substantially as and for the purpose set forth.

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