(No Model.)

T. W. WHEATLEY.

COAL SCREEN.

No. 302,806. Patented July 29, 1884.

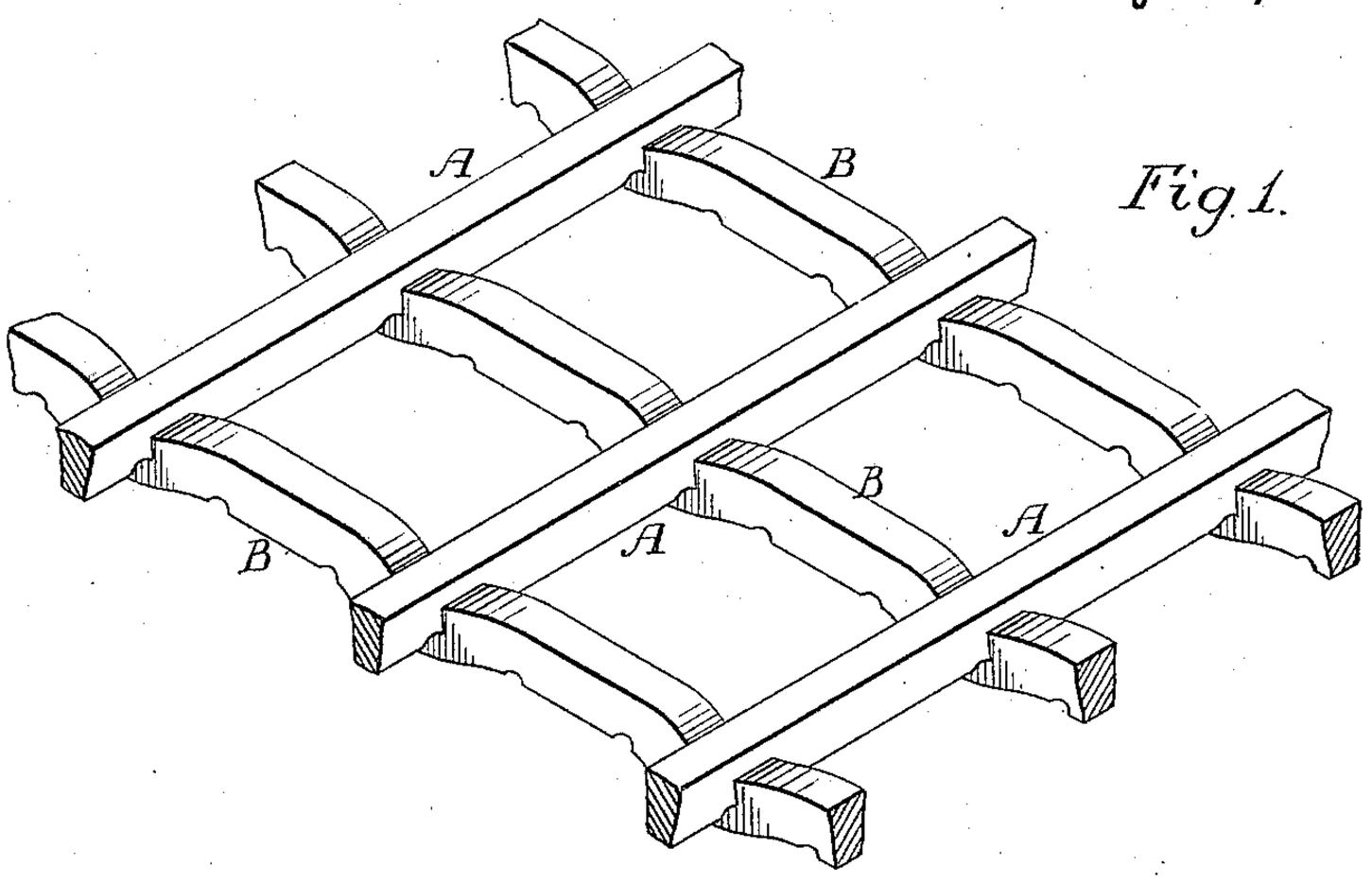


Fig. 1.

Fig. 2.

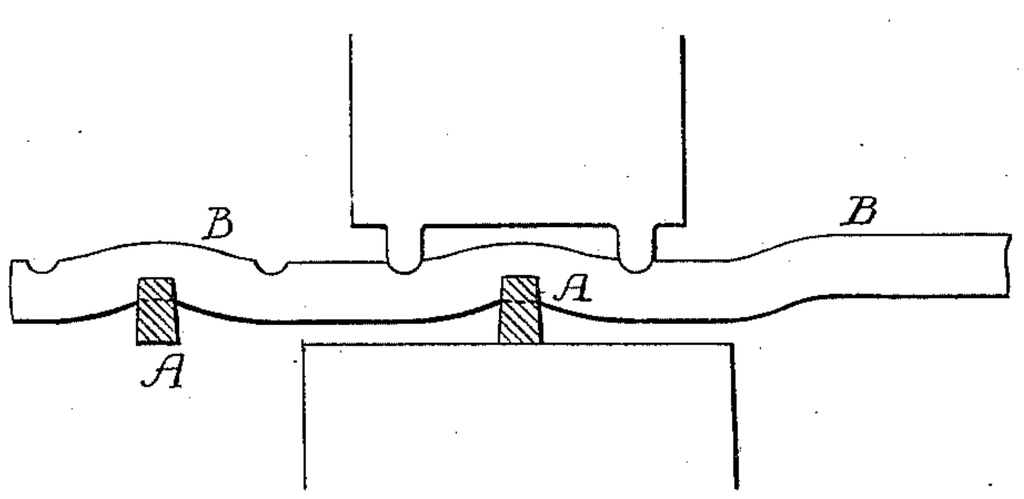


Fig. 3.

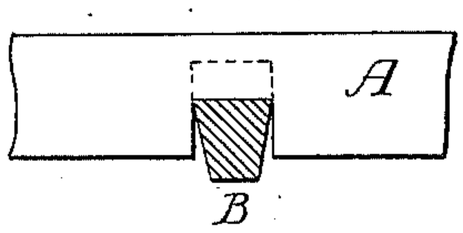
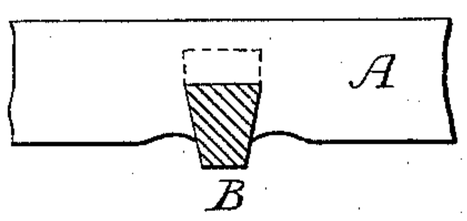


Fig. 4.



Witnesses
James F. Jobin,
Harry Smith

Inventor
Thomas W. Wheatley
by his Attorneys
Howson and Sons

UNITED STATES PATENT OFFICE.

THOMAS W. WHEATLEY, OF WILKES-BARRÉ, PENNSYLVANIA, ASSIGNOR TO JOSEPHINE G. SEITZINGER, OF SAME PLACE.

COAL-SCREEN.

SPECIFICATION forming part of Letters Patent No. 302,806, dated July 29, 1884.

Application filed January 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. WHEATLEY, a citizen of the United States, and a resident of Wilkes-Barré, Luzerne county, Pennsylvania, have invented certain Improvements in Coal-Screens, of which the following is a specication.

The object of my invention is to so construct a coal-screen that the bars of the same will be rigidly held in position in respect to each other, thereby preventing accidental change in the gage of the mesh in any part of the screen.

In the accompanying drawings, Figure 1 is a perspective view of part of a coal-screen made in accordance with my invention; Fig. 2, a diagram illustrating the method of making the screen; and Figs. 3 and 4, enlarged sectional views of part of the screen, further illustrating the mode of manufacture.

For the purpose of separating and sizing coal, screens made of woven wire are objectionable, because of the liability of the transverse bars to slip under the pressure exerted upon them, and thus change the gage of some of the meshes, this being the case even when the bars are crimped, as is usual in making screens of large size. To overcome this objection, I make the screen of rolled bars fitted and secured together, one set of bars having notches, preferably dovetailed, for the reception of the other set.

In making the screen shown in Fig. 1, the notched cross-bar A is supported in an inverted position by the bed or lower die of a press, as shown in Fig. 2. The dovetailed longitudinal bar B, also in an inverted position, is applied thereto, and the upper die of the press is caused to descend, said upper die having lugs for acting on the bar B, on each side of the bar A, as shown, so as to crimp said bar B and cause it to bind firmly upon the bar A, thus preventing the loosening of the cross-bar or the release of the same from the notch, which effectually retains the bar against longitudinal displacement, and thus insures the maintenance of a uniform gage of mesh throughout the screen. The bar A is then so acted upon by suitable dies as to conform to and firmly embrace the beveled bar B, as shown in Fig. 4, so as to prevent any vertical displacement of the latter.

My improved screen is mainly intended for that class of separators in which the screen is made in segments, and applied to a cylindrical frame; but it may be used with other frames as well.

When it is desired to construct a screen in which the bars are readily detachable, the crimping of the bars B may be dispensed with; but in most cases this method of construction is preferable.

I claim as my invention—

1. A coal-screen in which one set of dovetailed bars, B, are fitted to and secured within dovetailed notches in the other set of bars, A, as set forth.

2. A coal-screen in which one set of bars, A, having dovetailed notches, are combined with a set of dovetailed bars, B, adapted to the notches, and crimped to confine the bars A, as set forth.

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

THOMAS W. WHEATLEY.

Witnesses:

WILLIAM L. STEWART,

W. S. BENNETT.