

(No Model.)

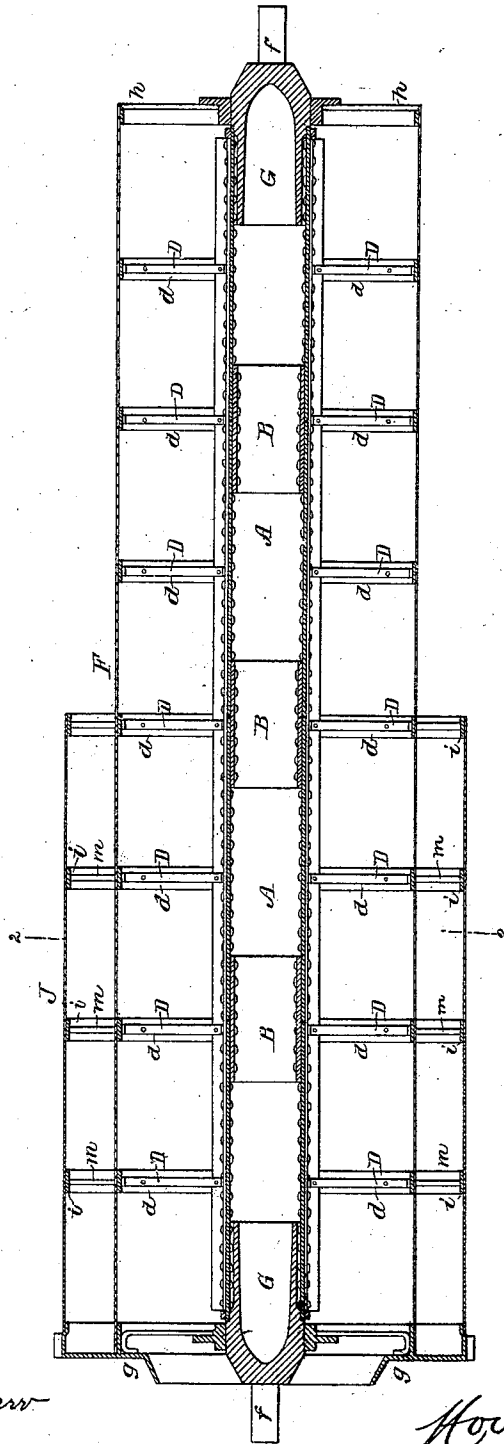
2 Sheets—Sheet 1.

E. H. JONES & S. NICHOLSON.
ROTARY SCREEN.

No. 549,365.

Patented Nov. 5, 1895.

FIG. 1.



Witnesses:

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William A. Barr.

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By their Attorneys

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(No Model.)

2 Sheets—Sheet 2.

E. H. JONES & S. NICHOLSON.
ROTARY SCREEN.

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FIG. 3.

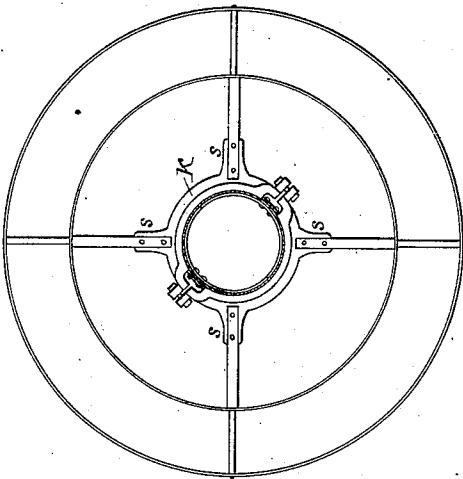


FIG. 4.

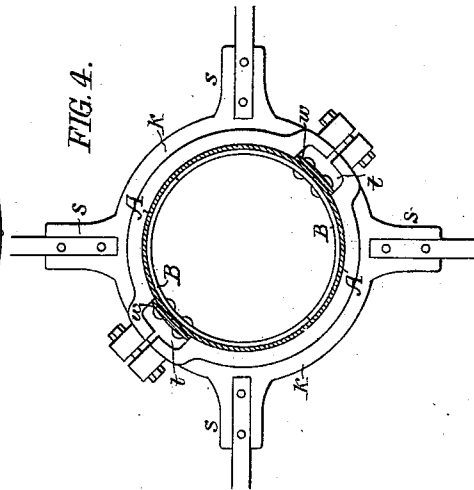
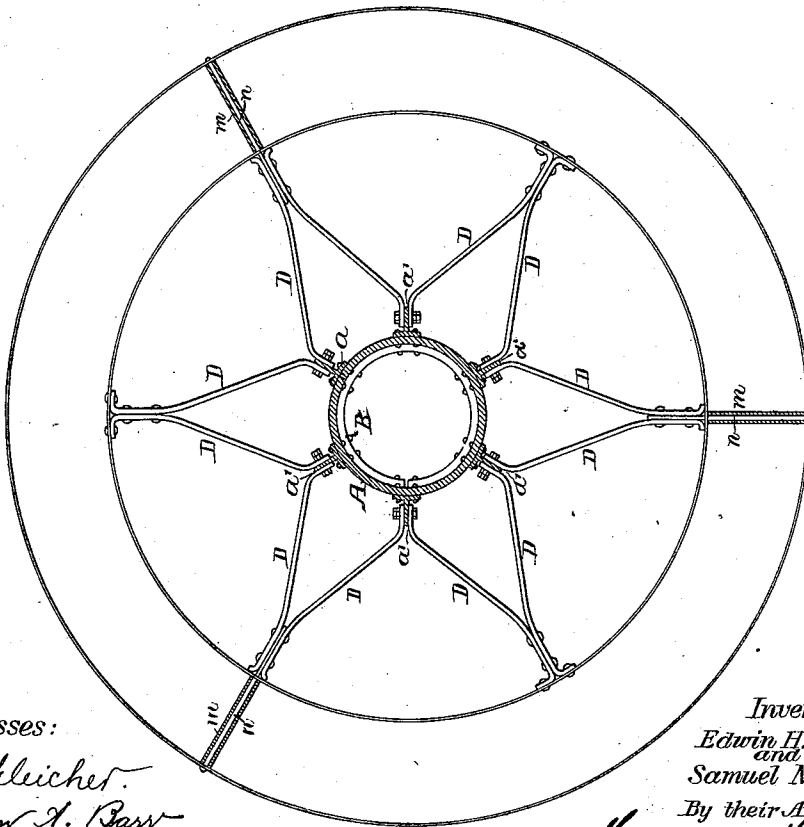


FIG. 2.



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UNITED STATES PATENT OFFICE.

EDWIN H. JONES AND SAMUEL NICHOLSON, OF WILKES-BARRÉ, PENNSYLVANIA.

ROTARY SCREEN.

SPECIFICATION forming part of Letters Patent No. 549,365, dated November 5, 1895.

Application filed July 30, 1894. Serial No. 519,004. (No model.)

To all whom it may concern:

Be it known that we, EDWIN H. JONES and SAMUEL NICHOLSON, citizens of the United States, and residents of Wilkes-Barré, Luzerne county, Pennsylvania, have invented certain Improvements in Rotary Screens, of which the following is a specification.

One object of our invention is to provide a rotary coal-screen with a cheap and simple but thoroughly effective form of central tubular shaft and a further object is to provide economical and efficient means for mounting the screen upon the shaft. These objects we attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of a coal-screen constructed in accordance with our invention. Fig. 2 is an enlarged transverse section of the same on the line 2-2, Fig. 1. Fig. 3 is a transverse section of a screen differing slightly in character from that shown in Figs. 1 and 2, and Fig. 4 is an enlarged transverse section of part of the screen shown in Fig. 3.

In Fig. 1, A represents the hollow shaft of the screen, which is composed of any desired number of longitudinal sections connected together by means of internal sleeves or thimbles B, to which the meeting ends of the sections are bolted or riveted, the shaft shown being composed of four sections, although it may comprise any number of sections, depending upon the length and character of the screen.

Each section of the shaft, as well as each of the thimbles B, is composed of a plate or sheet of iron or steel bent into tubular form, the meeting edges of the strips, constituting the tubular sections of the shaft, being united by means of a T-bar *a*, to which said meeting edges are bolted or riveted, other longitudinal T-bars *a'* being disposed around the shaft at suitable intervals so as to impart the necessary strength and longitudinal rigidity thereto. These T-bars *a a'* also serve as a means of connecting to the central hollow shaft of the screen the spokes or braces D, whereby the screen F is supported, said spokes being connected at their inner ends to the radial flanges of the T-bars and each

pair of spokes being bolted or riveted together at their outer ends and having bent ends or flanges bolted or riveted to the rings *d*, which connect the various sections of the screen.

The shaft A has at each end a hollow head G with a projecting spindle *f*, as usual, the receiving end of the screen also having the usual ring *g* with central opening for receiving the material to be screened.

The ring *g* carries one end of an outer screen J, which surrounds the receiving end of the screen F and extends part way along the same, this outer screen J being considerably greater in diameter than the screen F, so that the granular material which passes through the meshes at the receiving end of the screen F will be further screened by the sections of said outer screen J. These sections are connected by rings *i* in the same manner as the sections of the screens F, and said rings are supported by sleeves *m*, bearing upon the inner screen and surrounding the bolts *n*, whereby the two screens are connected together, as shown in Fig. 2, the inner ends of these bolts *n* being secured between the outer ends of adjoining spokes B, as also shown in said figure.

In some cases it may be preferable to employ in place of the longitudinal T-bars *a a'* a series of cast-iron spiders K for attaching the inner ends of the spokes, one of such spiders being shown in Figs. 3 and 4. These spiders are preferably made in sections, bolted together and having projecting arms *s* for attachment to the inner ends of the spokes and recesses *t* for receiving the bars *w*, whereby the meeting edges of the strip or strips comprising the central hollow shaft are secured together. In the structure shown in Figs. 3 and 4 said central hollow shaft, as well as the internal sleeves or thimbles, are composed of two semicircular segments, and two bars *w* are used for securing the shaft-segments together, these bars serving not only to longitudinally stiffen and strengthen the shaft, but also as keys for preventing the spiders from slipping on the shaft.

Having thus described our invention, we claim and desire to secure by Letters Patent—

1. A screen having a tubular shaft com-

posed of a series of sections united by internal sleeves or thimbles each of said sections consisting of a strip or plate of sheet metal bent into the desired form and having the
5 meeting edges united by a longitudinal bar or bars secured to the strip by bolts which also secure the thimbles, substantially as described.

2. A screen having a central tubular shaft
10 composed of one or more plates or strips of sheet metal bent into the desired form, and having the meeting edges united by one or more longitudinal bars, and a spider fitted

to said shaft, and having arms for connection with the spokes, said spider being re- 15
cessed for the reception of the longitudinal connecting bar or bars of the shaft, substantially as specified.

In testimony whereof we have signed our names to this specification in the presence of 20
two subscribing witnesses.

EDWIN H. JONES.

SAMUEL NICHOLSON.

Witnesses:

GEORGE NICHOLSON,
JNO. P. HUNTER.