No. 807,475. PATENTED DEC. 19, 1905.

J. E. LE BOSQUET & T. BELL.

OPERATING MECHANISM FOR SCREENS.

APPLICATION FILED FEB. 10, 1905.

2 SHEETS—SHEET 1.

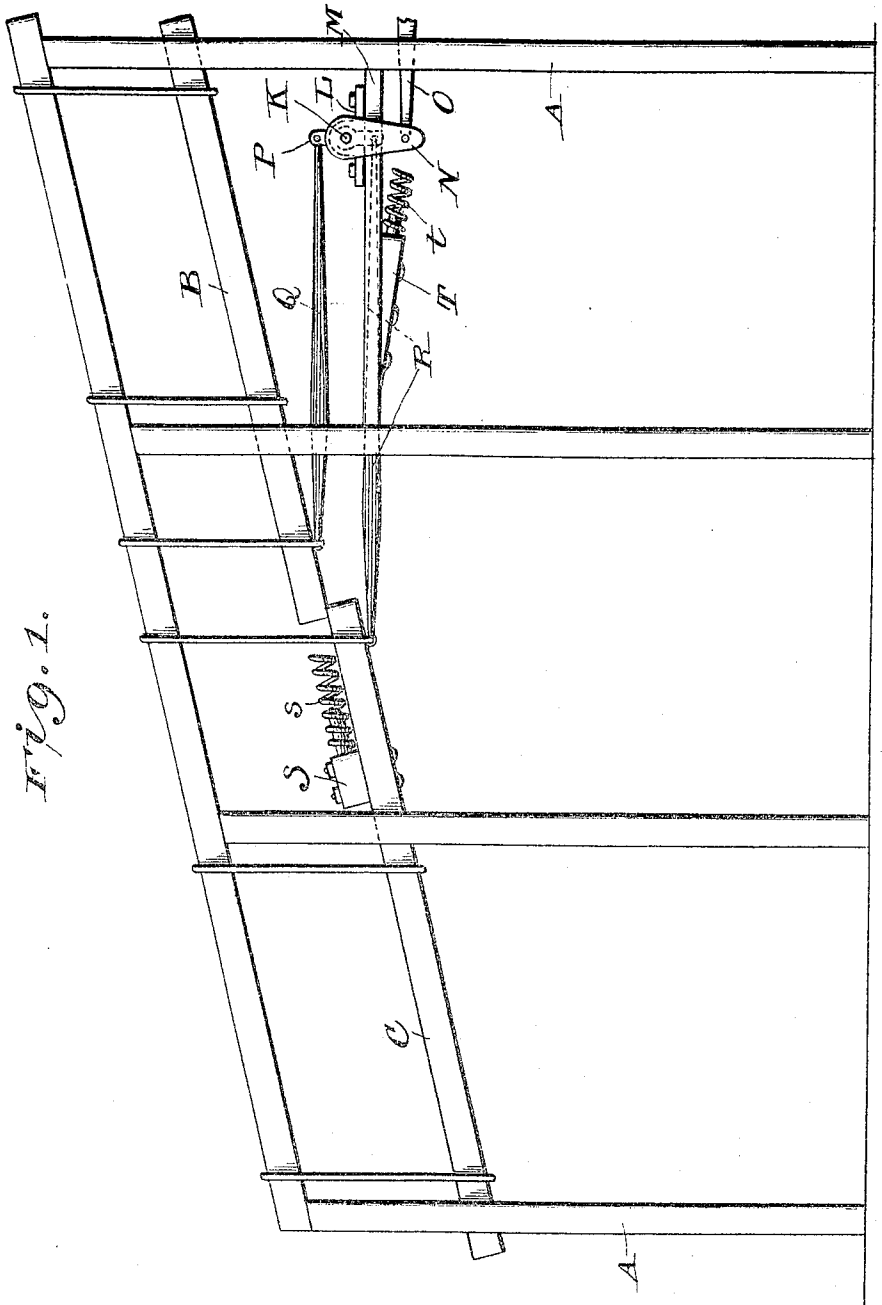


Fig. 1.

Witnesses

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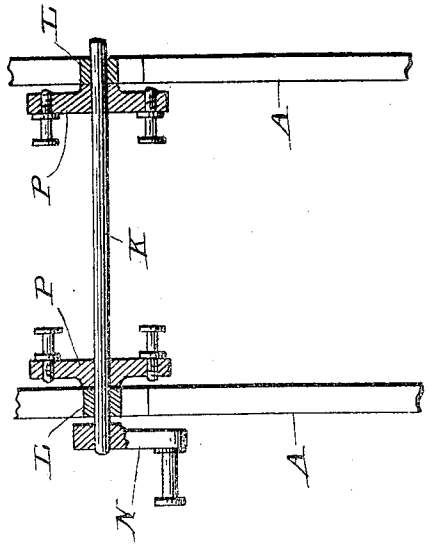
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2 SHEETS—SHEET 2.

Fig. 3.



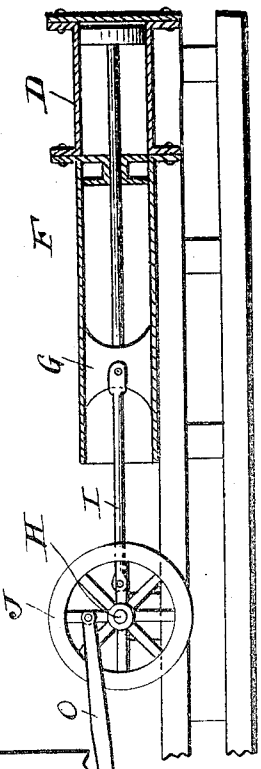
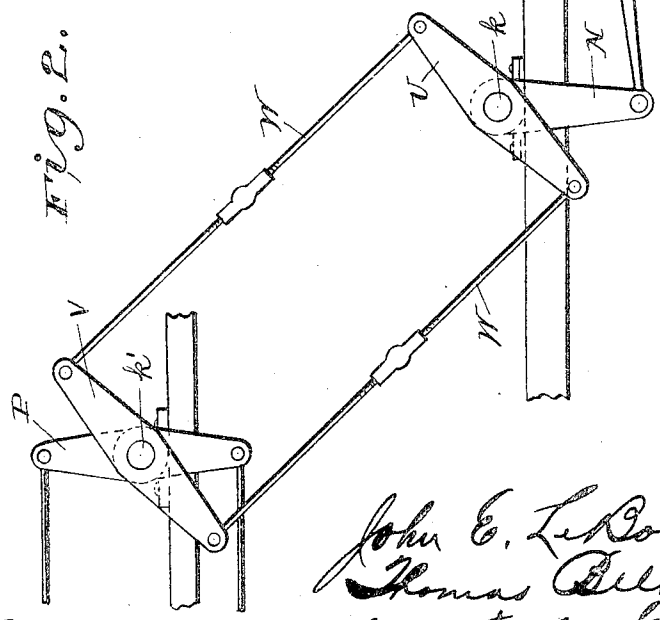


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN E. LEBOSQUET, OF SOUTH McALESTER, AND THOMAS BELL, OF HUGHES, INDIAN TERRITORY.

OPERATING MECHANISM FOR SCREENS.

No. 807,475. Specification of Letters Patent. Patented Dec. 19, 1905.

Application filed February 10, 1905. Serial No. 245,127.

To all whom it may concern:

Be it known that we, JOHN E. LEBOSQUET, residing at South McAlester, and THOMAS BELL, residing at Hughes, in Choctaw Nation, in the Indian Territory, citizens of the United States, have invented certain new and useful Improvements in Operating Mechanism for Screens, of which the following is a specification.

Our invention relates to devices for operating screens for coal, ore, &c., and has for its object the provision of simply-constructed mechanism for actuating screens that will replace the eccentrics in general use and be more effective in their operation.

Our invention will be particularly described hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is a side view of a screen, showing our operating mechanism in position; Fig. 2, a view illustrating the mechanism used for transmitting power when the engine-cylinder is not on the same plane as the ends of the screens, and Fig. 3 a view showing the operating-shaft and cranks thereof.

In the drawings similar reference characters indicate corresponding parts throughout the several views.

A represents a suitable frame, and B screens suspended in the frame.

D represents a steam-engine cylinder; E, a piston in said cylinder; F, the piston-rod, and G the cross-head.

H represents a shaft suitably journaled, and I a link connecting the cross-head G and a crank in said shaft H.

J represents a wheel or crank-disk secured to shaft H.

K represents a shaft journaled in boxes L on cross-beams M on frame A, having a crank N secured thereto and connected with wheel or disk J by means of a rod or link O.

P represents double-ended cranks secured to shaft K, and W and R rods connecting screens B and C, respectively, with said double-ended cranks.

In experimenting with our invention we have found that there was a great deal of lost motion and consequent jarring of the framework of the machine, and to overcome this we mount a block S on each side of the end of one screen B, having a coil-spring *s* secured to each block and so positioned that the other screen B strikes them when the screens approach each other, and an arm T, secured to the framework A, having a coil-spring *t* secured thereto and so positioned that the crank N strikes it when at the extremity of its stroke. It will be seen by this construction that when the screens are drawn apart the crank strikes the spring *t*, while when the screens come together the springs *s* on one screen intercept the end of the other screen, so that the extremity of each stroke of the rod O is cushioned and the jerking and jarring incident to the end of rod O passing the dead-centers of wheel or disk J avoided.

The operation of our invention is as follows: When steam is turned into D, causing the piston to reciprocate, the cross-head G imparts a rotatory motion to shaft H by means of link I. The shaft K is given a rocking motion by means of crank N and rod or link O. The double-ended cranks P then through rods Q and R impart a shaking motion to the screens.

In Fig. 2 the cylinder D is not on the same plane as the ends of the screens B and C. In such case instead of one shaft K two shafts are provided, (designated in said Fig. 2 by the characters *k* and *k'*,) the crank N being secured to *k*, while the double-ended cranks P are secured to shaft *k'*, the two shafts being connected by means of double-ended cranks U and V secured to the shafts *k* and *k'*, respectively, and connected by rods W.

Having thus described our invention, what we claim is—

1. In combination with a frame and two shaking screens mounted therein, springs secured to one screen and so positioned as to be struck by the other screen, a shaft suitably journaled on the frame, double-ended cranks secured to said shaft, rods connecting one end of said cranks with one screen, rods connecting the other end of said cranks with the other screen, a crank secured to the end of said shaft, means to oscillate said crank, and a spring-buffer mounted on the frame to engage the crank at the extremity of its stroke, substantially as shown and described.

2. In combination with a frame and two shaking screens mounted therein, springs secured to one screen and so positioned as to be struck by the other screen, a shaft suitably journaled on the frame, double-ended cranks secured to said shaft, rods connecting one end of said cranks with one screen, rods connect-

ing the other end of said cranks with the other screen, an engine-cylinder, a cross-head driven by the piston in said cylinder, a drive-shaft suitably journaled and driven by said cross-head, a wheel or disk secured to said drive-shaft, a crank secured to the shaft journaled on the frame, a link connecting said wheel or disk and said crank, and a spring-buffer mounted on the frame to engage the crank at the extremity of its stroke, substantially as shown and described.

In testimony whereof we hereto affix our signatures in the presence of two witnesses.

JOHN E. LEBOSQUET.
THOMAS BELL.

Witnesses:
W. O. JONES,
S. F. PRICE.