

(No Model.)

2 Sheets—Sheet 1.

F. H. SCHULE.

OSCILLATING SUPPORT FOR SHAKING SIEVES.

No. 605,924.

Patented June 21, 1898.

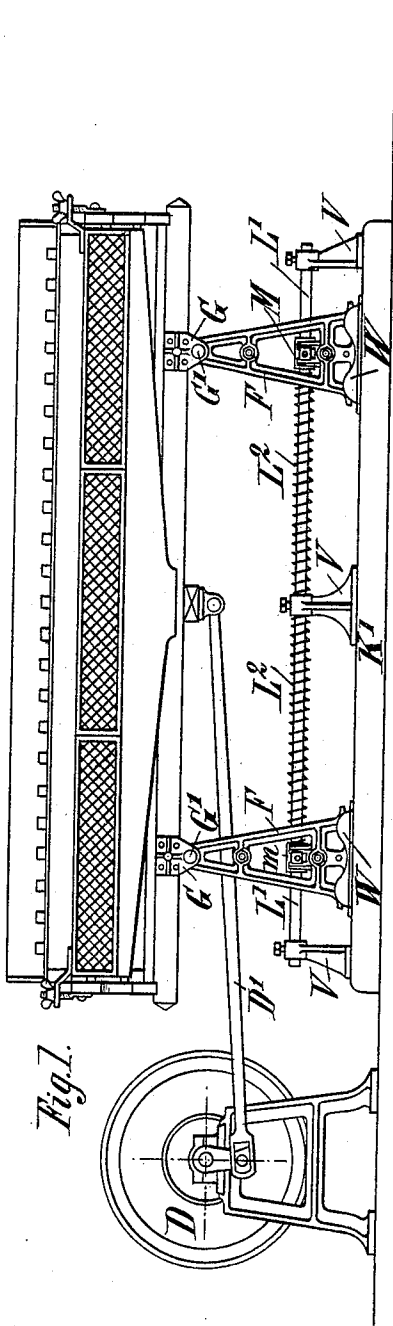


Fig. 1.

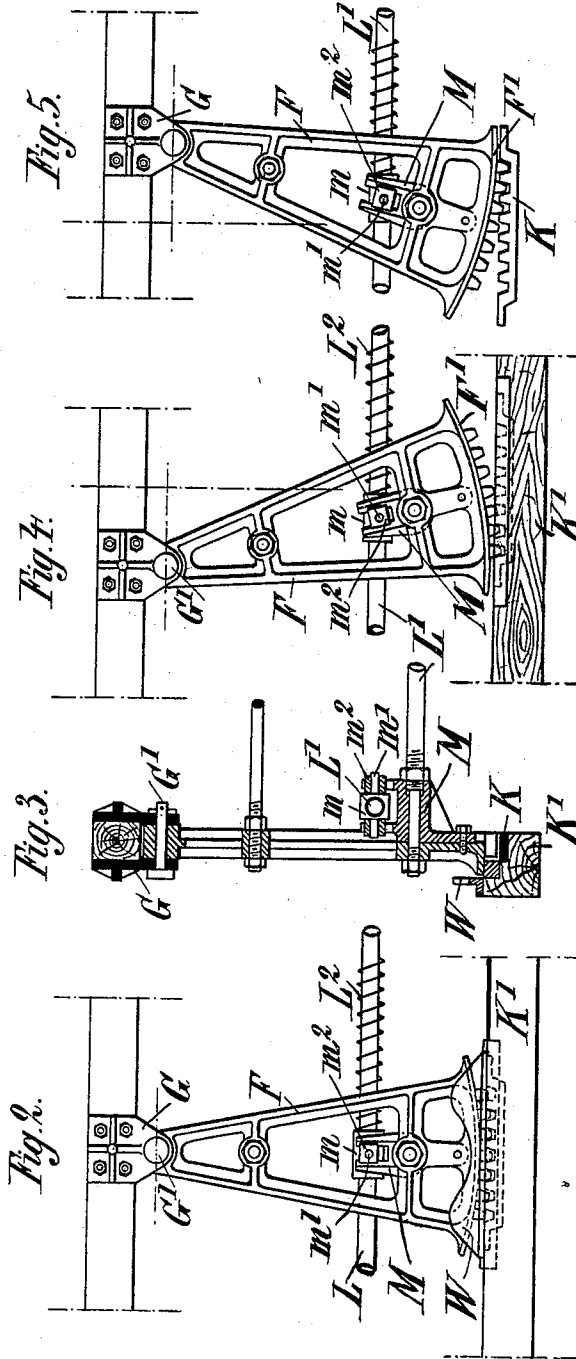


Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Witnesses:
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Fig. 6.

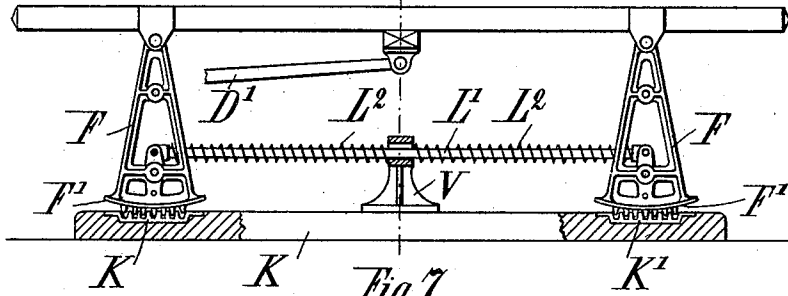


Fig. 7.

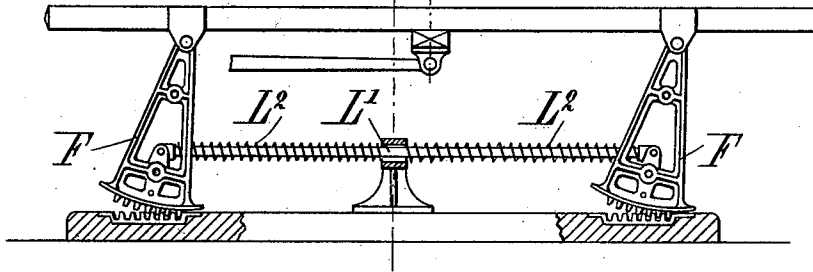


Fig. 8.

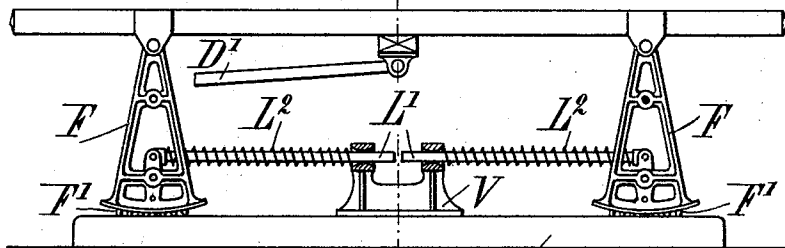
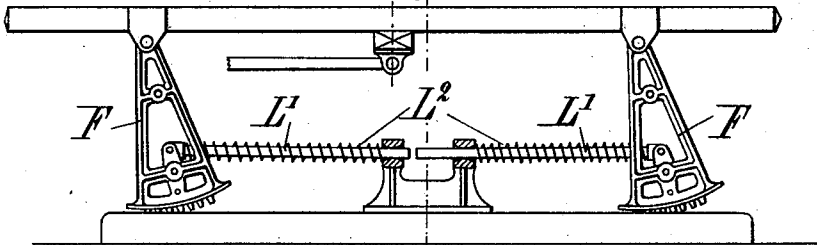


Fig. 9.



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UNITED STATES PATENT OFFICE.

FRIEDRICH HERMANN SCHULE, OF HAMBURG, GERMANY, ASSIGNOR TO
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OSCILLATING SUPPORT FOR SHAKING-SIEVES.

SPECIFICATION forming part of Letters Patent No. 605,924, dated June 21, 1898.

Application filed June 22, 1897. Serial No. 641,792. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRICH HERMANN SCHULE, a subject of the German Emperor, and a resident of Hamburg, in the German Empire, have invented certain new and useful Improvements in and Relating to the Oscillating Supports for Shaking-Sieves, of which the following is a specification.

The invention refers to improvements in and relating to oscillating supports for shaking-sieves, sorting-machines, stone-extracting machines, separating-machines, and the like, the object being to provide the oscillating supports for such machines with means adapted to absorb or neutralize in a safe and reliable manner the effect of the shocks and concussions produced during the forward-and-backward movements and resulting from the operation of the machine; and with this end in view my invention consists in certain novel features of construction and combinations of parts, as will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a grain-separating machine provided with my improved oscillating supports. Fig. 2 is a detailed view of one of the oscillating supports drawn on an enlarged scale. Fig. 3 is a vertical section through Fig. 2. Figs. 4 and 5 are similar views as Fig. 2, showing the oscillating support swung out in both its extreme positions, respectively. Figs. 6 to 9 illustrate modifications.

Similar letters refer to similar parts throughout the several views.

The to-and-fro motion is imparted to the machine, Fig. 1, designed to receive a shaking motion by means of a suitable crank device D, connected with the machine frame or body through the medium of a connecting-rod D'.

The shaking-machine rests upon four sector-shaped supports F, pivoted by means of bolts G' to suitable lugs G of the machine-body. The supports F are provided with segmental racks F', the teeth of which mesh with the teeth of racks K, fixed to the supporting-frame K'. Suitable guide walls or cheeks W, arranged upon the beams K', aside of each support F prevent the latter, and thereby the whole machine, from yielding laterally.

The means for absorbing or neutralizing the shocks or concussions resulting from the operation of the machine consist of coiled springs L², carried by horizontal rods or tubes L', which are expediently arranged between the oscillating supports F in rigid supporting blocks or brackets V, Fig. 1, firmly attached to the supporting-frame K'. The rods or tubes L' are passed through sleeves m, having trunnions m', journaled in sliding blocks m², which are carried by suitable fork-shaped brackets M, rigidly connected to the sector-shaped supports F. Between each sleeve m and the central bracket V a comparatively long coiled spring L² is placed around the rod L'. The rods L' are either arranged rigidly in the supporting-brackets V, as before mentioned, and loosely or movably in the sleeves m, Fig. 1, or vice versa—that is to say, they are pivoted to the supports F and loosely in the supporting-brackets, Figs. 6 to 9. In the former case the sleeves m are displaced upon the rods L', which remain stationary when the supports F are oscillated, whereas in the latter case the sleeves m carry the rods L' along with them, and these latter are displaced in the supporting-brackets V accordingly. In each case the springs L² are alternately compressed and expanded, and thus absorb the force of the shocks and concussions resulting from the operation of the machine without showing any tendency to break, because by the above-described arrangement the springs may be made sufficiently long.

In Figs. 6 to 9 I have shown the rods that carry the buffer-springs L² as pivoted to lugs or ears on the sector-shaped legs of the screen, said rods having sliding motion in a fixed bracket or brackets, and in Figs. 6 and 7 I have shown a single rod L', connecting two legs F on one side of the machine, while in Figs. 8 and 9 I have shown a separate rod for each leg and a separate fixed support or bearing for each rod. These rods, as shown, lie in the normal plane of the screen—i. e., in a horizontal plane—instead of in planes converging in direction from or toward the screen, as shown in my United States Patent No. 559,815, and I have found that the arrangement herein described produces much better results.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

- 5 1. The combination with a horizontal screen, means for imparting motion thereto, toothed rocking sectors supporting said screen, and correspondingly-formed supporting-bearings therefor, of a standard or bracket
10 intermediate the sectors, a rod supported by said standard or bracket and in pivotal relation to the sectors, and coiled springs on said rod, substantially as and for the purpose set forth.
- 15 2. The combination with a horizontal screen, means for imparting a reciprocating motion thereto, sector-shaped legs pivoted to said screen near opposite ends, a base on

which said legs are adapted to rock, and a forked bearing projecting inwardly from the proximate faces of the legs; of rods carrying sleeves, blocks in which said sleeves are journaled, said blocks seated in the aforesaid forked bearings, fixed supports for said rods intermediate of the legs, and coiled springs on said rods intermediate of the sleeves thereon and their fixed supports, for the purpose set forth. 20 25

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 30th day of January, 1897. 30

FRIEDRICH HERMANN SCHULE.

Witnesses:

MAX LEMCKE,
MAX KAEMPF.