

**924,296.**

*Fig. 1.*





# UNITED STATES PATENT OFFICE.

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## SIEVE-HANGER.

No. 924,296.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, ABRAM P. TROXELL, a citizen of the United States, and a resident of Breckenridge, in the county of Sangamon and State of Illinois, have invented a new and Improved Sieve-Hanger, of which the following is a full, clear, and exact description.

The invention relates to grain separators, and its object is to provide a new and improved sieve hanger or adjuster, arranged to permit quick changing of the motion of the sieves, to allow the threshed material to pass slower or quicker over the sieves with a view to insure thorough cleaning of the material.

The invention consists of novel features and parts and combinations of the same, which will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement as applied, parts being in section; Fig. 2 is a similar view of the same showing the parts in a different position; and Fig. 3 is a transverse section of the same on the line 3—3 of Fig. 1.

In the separator frame A is hung the shoe B carrying the sieves C, over which passes the material to be separated or cleaned, the rear upper end of the shoe being hung on links D held on a transverse shaft E attached to the sides of the separator frame A. The forward lower part of the shoe B is provided with a transversely-extending rod F extending freely through openings A' formed in the sides of the separator frame A, and the outer ends of the rod F are provided with adjusting links G connected at their lower ends with a transverse shaft H extending through segmental slots A<sup>2</sup> formed in the sides of the separator frame A. On the shaft H are secured gear wheels I in mesh with racks J secured to the outer faces of the sides of the separator frame A, as plainly shown in Figs. 1 and 2, the racks J having their center coinciding with the axis of the rod F. One outer end of the shaft H is provided with a suitable handle or wheel H', adapted to be taken hold of by the operator, for moving the shaft H forward or backward through the slots A<sup>2</sup>, so that the gear wheels I travel on the racks J. As shown in Fig. 1, the links D and G are so

arranged relative to each other that a parallel swinging motion is given to the shoe B to cause the material to travel over the sieves at the greatest speed. When the shaft H is moved from the right to the left, say to the position shown in Fig. 2, then the links D and G stand at such an angle one to the other, that in addition to the forward and back swinging motion given to the shoe, an additional up and down swinging motion is given to the forward end of the shoe B to cause the material to travel slower over the sieves C. Thus by adjusting the shaft H, the relative position of the links D and G is changed to give a different movement to the shoe B and to the sieves C, for the material to travel faster or slower over the sieves, without requiring changing of the sieves in the shoes, to incline the sieves more or less, as heretofore practiced.

In order to hold the shaft H in the adjusted position, suitable means may be employed, preferably, however, friction disks K held on the shaft H and pressed against the inner faces of the sides of the separator frame A by the use of springs L coiled on the shaft H, and abutting against collars N secured to the shaft H. Thus whenever the operator moves the shaft H forward or backward, the spring-pressed friction device securely holds the shaft H in the adjusted position.

The hanger shown and described is very simple and durable in construction, can be cheaply manufactured and readily applied to the sieve shoes of separators and other machines as now constructed.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A hanger for the sieve shoes of separators, comprising links on which the rear upper end of the sieve shoe is hung, adjusting links pivotally connected with the front lower end of the sieve shoe, a shaft journaled in the free ends of the adjusting links, gear wheels on the said shaft, racks attached to the separator frame and in mesh with the said gear wheels, and springs for holding the said shaft in the adjusted position.

2. A hanger for the sieve shoes of separators, comprising links on which the rear upper end of the sieve shoe is hung, adjusting links pivotally connected with the front lower end of the sieve shoe, a shaft journaled in the free ends of the adjusting links, gear wheels on the said shaft, racks attached to



the separator frame and in mesh with the said gear wheels, and spring friction devices on the said shaft for engaging the separator frame to hold the shaft in the adjusted position.

3. A hanger for separator sieve shoes, comprising pairs of links, upon which the shoe is hung, a shaft journaled in the free ends of one pair of links, gear wheels on said shaft, racks attached to the separator frame and in mesh with the said gear wheels, friction disks on the shaft and abutting against the inner surface of the sides of the separator frame, and a spring on the shaft pressing against the disks.

4. The combination with the sieve shoe, of adjusting links with whose one end the shoe is connected, a shaft journaled in the other ends of the links, a pinion on the shaft, a rack with which the pinion meshes, and springs normally retaining the shaft and the pinion in adjusted position.

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

ABRAM PERREY TROXELL.

Witnesses:

JOHN W. TROXELL,  
JACOB P. COOPER.