

G. HOLLINGBERY.
GRIZZLY SCREEN.
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1,399,211.

Patented Dec. 6, 1921.

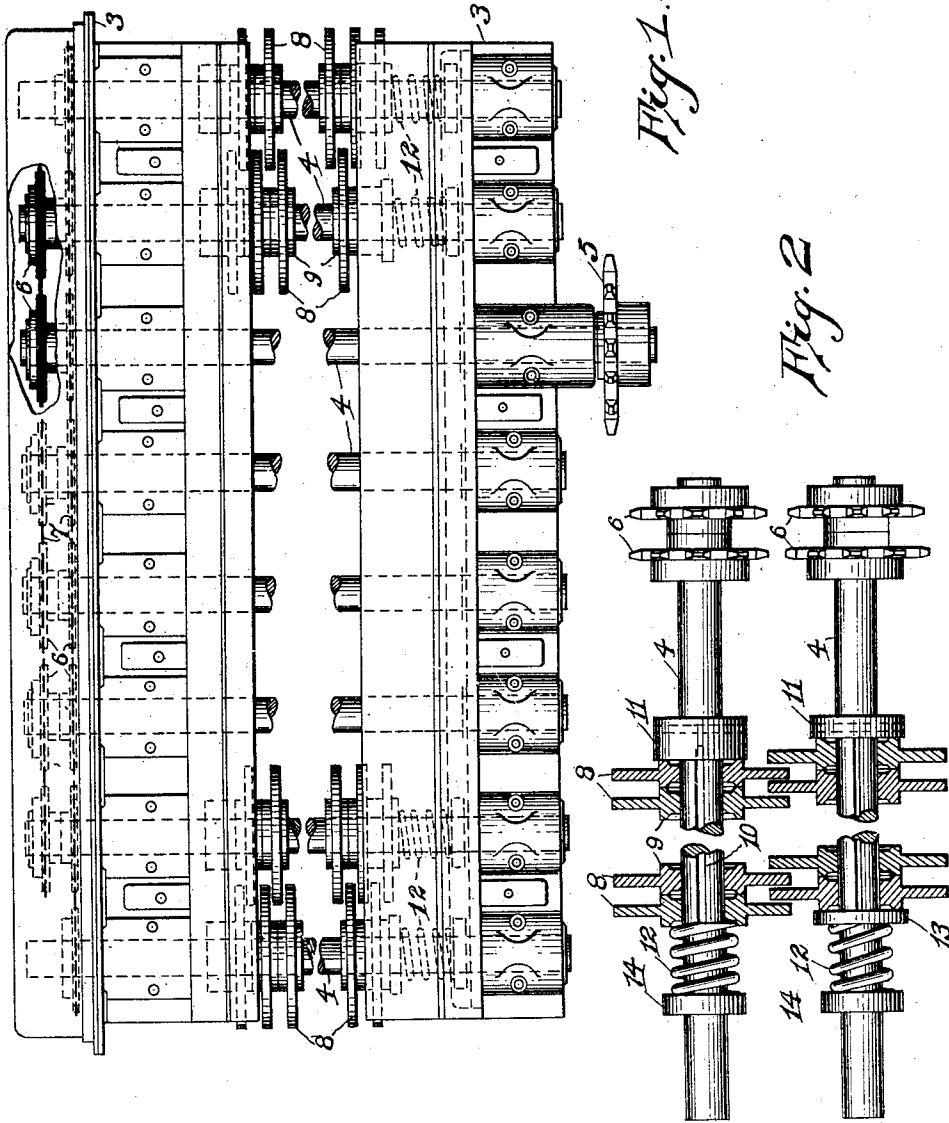


Fig. 1.

Fig. 2.

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By

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GRIZZLY-SCREEN.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE HOLLINGBERRY, a citizen of the United States, residing at Mayville, in the county of Dodge and State of Wisconsin, have invented certain new and useful Improvements in Grizzly-Screens, of which the following is a specification.

The present invention relates to "grizzly" screens, and the like in which a series of parallel shafts are employed carrying spaced supporting or screen elements that interlap. It is the usual practice to mount these elements slidably on the shafts, and as the parts are subjected to considerable wear by reason of the action of the grit and dirt, they soon become loose and in time interfere.

The object of the present invention is to provide means whereby the elements on each shaft are maintained tightly together so as to avoid the entrance between them of grinding substances, while any wear that may take place is automatically taken up. This materially prolongs the life of the structure.

In the accompanying drawings:—

Figure 1 is a plan view of a portion of a grizzly with intermediate parts broken away, and showing the improvements,

Fig. 2 is a detail sectional view, with portions of two adjacent shafts and the elements mounted thereon.

In the structure disclosed a suitable supporting frame 3 is employed, in which are journaled transverse parallel shafts 4. One of these shafts may be a driving shaft and equipped with a sprocket wheel 5, to which power may be transmitted from any suitable source. The shafts preferably also have other sprocket wheels 6 around which pass sprocket chains 7 or other endless driving elements, as is well known to those skilled in the art.

Mounted on each shaft are supporting elements shown in the form of disks 8, having thickened hub portions 9. These disks are slidably mounted on the shafts and are keyed thereto in a manner well understood, the keyways in the shafts being illustrated at 10. The series of disks on each shaft is abutted against a stop collar 11, and the disks are so arranged that they are in staggered relation and interlap. In other words, the disks of one shaft enter the spaces between the disks of the adjacent shaft, as shown in Fig. 2. In order to hold the disks on each shaft snugly together a coiled spring 12 is mounted on each shaft at the end of the series and

bears at one end against a washer 13 interposed between the spring and the end disk. The spring is also abutted against a collar 14 suitably fixed to the shaft.

It will thus be clear that with this construction the disks are always held tightly together, so that the ingress of gritty substances between the hubs is to a very material extent prevented, but should wear occur this wear will be taken up by the expansion of the springs, maintaining a tension against the hubs. The result is that the parts will be maintained in properly co-operative relation, greatly lengthening the life of the structure.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a structure of the character set forth, a shaft, a plurality of spaced material supporting elements slidably mounted in the shaft, and means at one end of the shaft and outside the screening area for yieldingly urging all the elements on said shaft together.

2. In a structure of the character set forth, a shaft, a plurality of spaced material supporting elements slidably mounted in the shaft, and a coiled spring on the end of the shaft outside the screening area and bearing against the adjacent element and urging all the elements together.

3. In a structure of the character set forth, the combination with a plurality of shafts side by side, of sets of spaced material-supporting elements slidably mounted on the shafts, respectively, the elements of one shaft being interposed between those of the adjacent shaft, and means at the ends of the shaft outside the screening area and for yieldingly urging together all the members on each shaft.

4. In a structure of the character set forth, the combination with a plurality of shafts side by side, of sets of spaced material-supporting elements slidably mounted on the

shafts, respectively, the elements of one shaft being interposed between those of the adjacent shaft, and coiled springs on the ends of the respective shafts outside the screening area and operating against all the elements thereon for urging them together. 15

5. In a structure of the character described, the combination with a plurality of shafts side by side, of stops on certain of the end portions of the shafts, a series of disks slidably keyed on each shaft and abutted against the stop thereof, the disks of one

shaft extending between the disks of the adjacent shafts, and coiled springs on the other end portions of the shafts outside the screening area and operating against all the disks thereon to yieldingly hold said disks tightly together.

In testimony whereof I affix my signature in the presence of two witnesses.

GEORGE HOLLINGBERRY.

Witnesses:

ETHEL J. BROWN,
WM. W. JANZER,