

A. C. SARGENT.
SUPPORT FOR DRIER APRONS.
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1,401,366.

Patented Dec. 27, 1921.

Fig. 1.

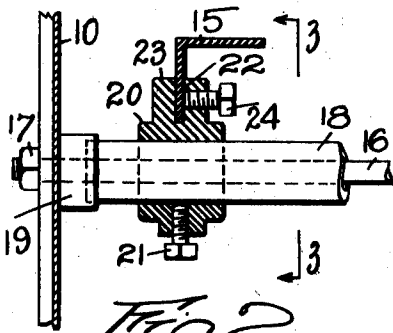
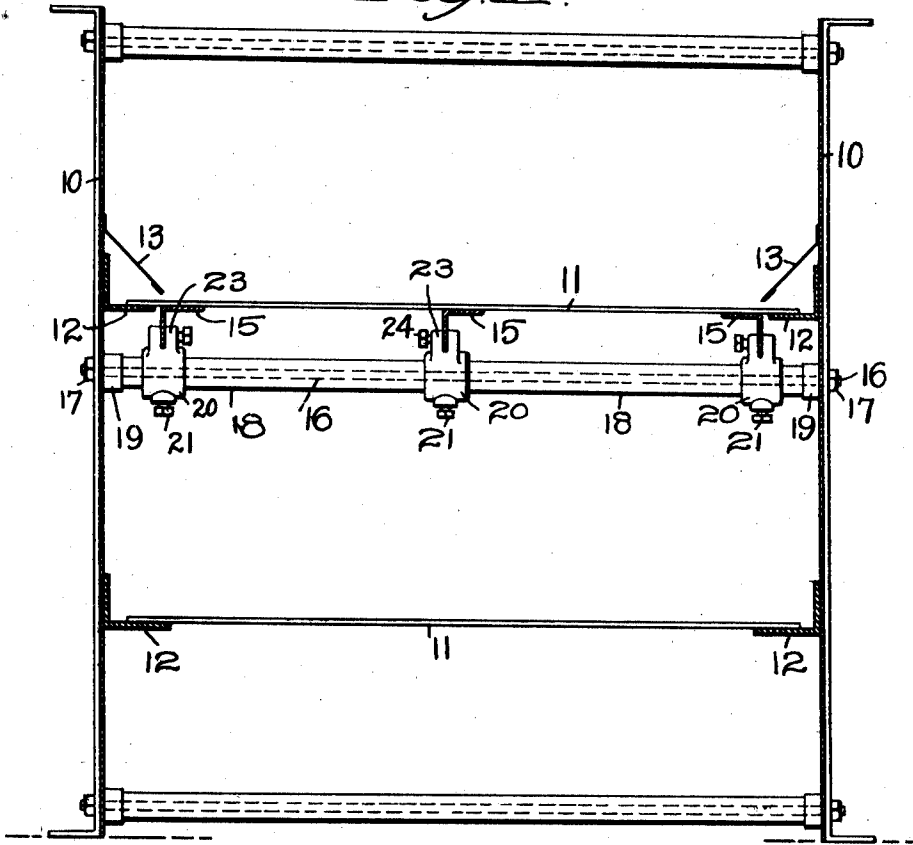


Fig. 2.

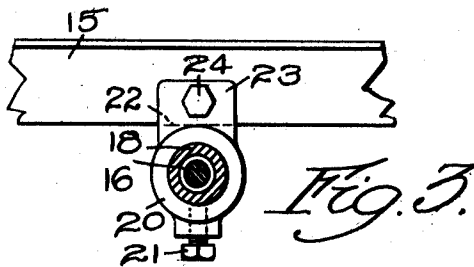


Fig. 3.

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UNITED STATES PATENT OFFICE.

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SUPPORT FOR DRIER-APRONS.

1,401,366.

Specification of Letters Patent.

Patented Dec. 27, 1921.

Application filed December 13, 1920. Serial No. 430,116.

To all whom it may concern:

Be it known that I, ALLAN C. SARGENT, a citizen of the United States, residing at Westford, in the county of Middlesex and State of Massachusetts, have invented new and useful Supports for Drier-Aprons, of which the following is a specification.

This invention relates to an improved form of carrying supports for use under traveling endless aprons on drying machines.

The principal object of the invention is to provide improved means whereby the several supporting members that carry the apron will not have to be carefully drilled because their alinement will not depend upon the drilling. In this way a great deal of labor is saved in manufacture and particularly in assembling.

Other objects of the invention are to simplify the means for carrying the aprons and to arrange them so that in case of accidental loosening of the rods that go through the drier the supports will not get out of position unless the condition is so bad as to throw them all out.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a transverse sectional view of a drier showing a series of these supports mounted in accordance with this invention;

Fig. 2 is a similar view of one side of the device on enlarged scale showing the supporting casting in section, and

Fig. 3 is a longitudinal sectional view on the line 3—3 of Fig. 2.

The invention is shown as applied to a drier 10 having an endless conveyer apron 11 moving therein for conducting the material to be dried. The edges of the apron rest on a series of longitudinal angle irons 12 secured to the sides of the drier and above these there are inclined walls 13 for a well-known purpose.

The part of the conveyer which supports the material to be dried is itself supported at intervals across the drier by a series of longitudinal angle irons 15. Each of these has a horizontal flange at the top on which the apron rests. I have shown two of these at the sides and one at the center which is enough for ordinary driers.

These angle irons are supported by rods 16 that extend transversely through the drier and are secured by nuts 17 or the like at its outer surface. Inside is a single length of

pipe 18 extending almost all the way across the drier with its ends fitting into a pair of cupped collars 19 engaging the inner sides of the drier casing. When the nuts 17 are tightened up this whole structure is fixed in position and no part of it can get out of position independently of the rest of it.

For the direct support of the angles 15 I provide a corresponding number of castings 20 on each of the pipes 18. Each casting is provided with a cylindrical perforation for receiving the pipe and a set-screw 21 is employed for securing it fixedly thereto in any desired position lengthwise of the pipe.

Each of these castings 20 is provided with a slit 22 extending vertically down from the top and located in a projection 23 extending upwardly from the middle of the casting. These slits therefore are longitudinal with respect to the drier and each receives the lower flange of one of the angles 15, this flange being vertical. These flanges are held in position by set screws or the like 24. It will be understood that a plurality of these castings 20 located on a corresponding number of pipes 18 will support each of the angle irons 15 so as to hold them in horizontal position, so that their upper surfaces constitute supporting tables or tracks over which the conveyer 11 slides.

These angles are easily alined and can be used direct from stock without any preliminary spacing or drilling as no holes have to be put through them. This in itself makes them easy to assemble and reduces the cost of that operation very materially. On account of the several angles being in contact with the bottom of the conveyer and their being supported at intervals, there is not much tendency for them to turn on the rod 16 and consequently the set screws 21 are sufficient to hold them in position.

Although I have illustrated and described only a single form of the invention I am aware of the fact that modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims.

Therefore, I do not wish to be limited to all the details of construction herein shown and described, but what I do claim is:—

1. In a drier, the combination with a traveling apron, of a rod extending through the drier under the apron, a pipe on the rod extending across the drier from one side to

the other in one piece, a plurality of supports each having a passage therethrough fitting and fixed to the pipe and provided with a projection slit transversely, and angle plates each having a flange clamped in one of said slits and a top flange located horizontally in position to receive the bottom of said conveyer thereon and support it.

2. In a drier, the combination with a traveling conveyer apron for supporting the material to be dried, of edge supports therefor, a rod extending through the drier under the apron, a pipe on the rod extending across the drier inside from one side to the other in one piece, cupped collars on the rod at both ends for receiving the ends of the pipe, a plurality of cast supports each having a passage therethrough fitting and fixed to the pipe and provided with an upwardly ex-

tending projection slit transversely at the top, and angle plates each having a vertical flange clamped in one of said slits and a top flange located horizontally in position to receive the bottom of said conveyer thereon and support it, whereby any tendency of one of the plates to turn out of place about the rod will be resisted by the others.

3. In a conveyer apron support for a drier, the combination of a supporting pipe, a casting fixed thereto and having an upward projection slit vertically part way down from the top, and an angle iron having a vertical flange secured in said slit and a horizontal flange above for supporting the conveyer apron.

In testimony whereof I have hereunto affixed my signature.

ALLAN C. SARGENT.