

A. W. THOMPSON.
WIRE CLOTH APRON.
APPLICATION FILED NOV. 9, 1910.

987,415.

Patented Mar. 21, 1911.

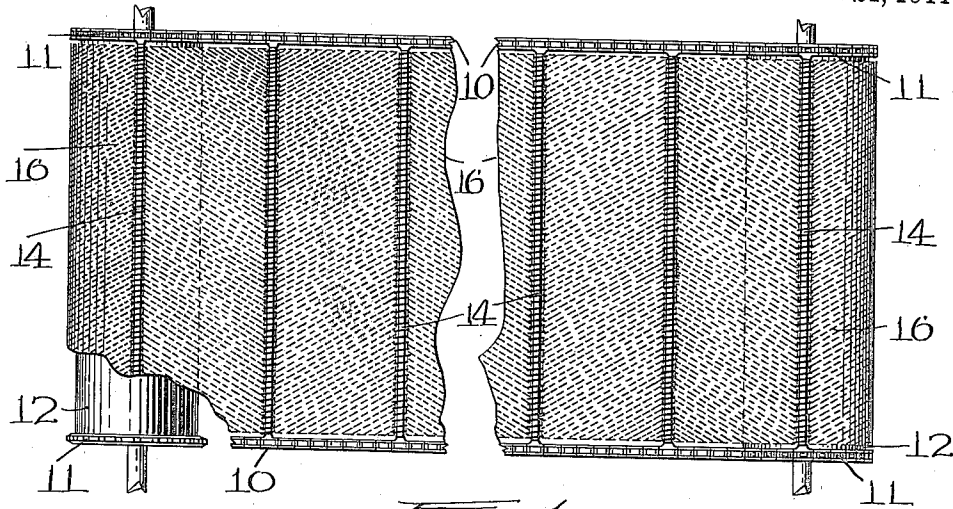


Fig. 1.

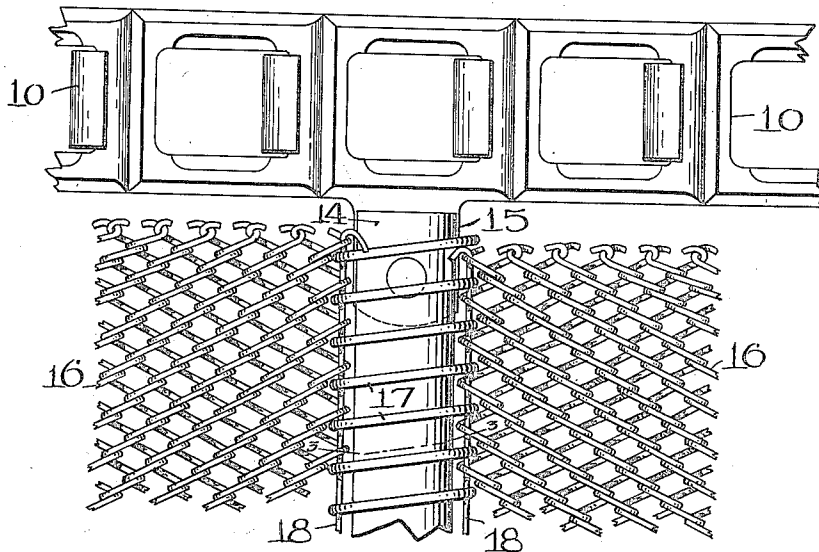


Fig. 2.

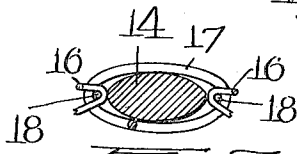


Fig. 3.

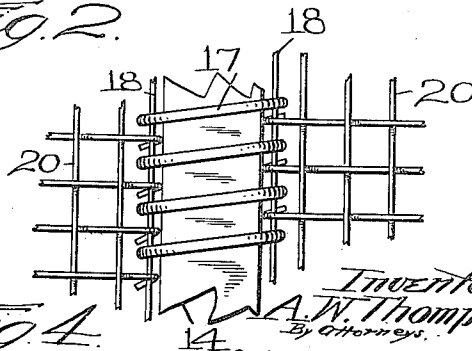


Fig. 4.

Witnesses:

C. F. Mason
M. E. Regan.

Inventor:
A. W. Thompson.
By Attorneys.

Southgate & Southgate

UNITED STATES PATENT OFFICE.

ALBERT W. THOMPSON, OF MANCHESTER, NEW HAMPSHIRE, ASSIGNOR TO C. G. SARGENT'S SONS CORPORATION, OF GRANITEVILLE, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

WIRE-CLOTH APRON.

987,415.

Specification of Letters Patent.

Patented Mar. 21, 1911.

Application filed November 9, 1910. Serial No. 591,400.

To all whom it may concern:

Be it known that I, ALBERT W. THOMPSON, a citizen of the United States, residing at Manchester, in the county of Hillsboro and State of New Hampshire, have invented a new and useful Wire-Cloth Apron, of which the following is a specification.

This invention relates to an apron for use in conveying material, and is particularly designed for use in driers and washers for wool and similar fibrous materials, yarn conditioning machines, and the like, but is capable of general use.

The principal objects of the invention are to provide simple and convenient means whereby when the wire cloth of the conveyer breaks, a small section of it can conveniently be removed and replaced without interfering with the rest of the apron; also to provide a construction in which the removal of the section can be accomplished in a very expeditious manner and in which it can be replaced also in a very short time; and to provide an improved form of connection between the several sections of wire cloth capable of being readily supported on transverse slats between the chains.

Further objects and advantages of the invention will appear hereinafter.

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

Figure 1 is a plan of a portion of a wool drier showing an endless apron constructed in accordance with this invention; Fig. 2 is a plan of a few sections of the apron and chain on enlarged scale; Fig. 3 is a vertical sectional view of a portion of the same on the line 3—3 of Fig. 2; and Fig. 4 is a plan of a modification.

The invention is shown as applied as usual to a double chain 10 passing over sprocket wheels 11 between which sprocket wheels are shown drums 12 for supporting the wire cloth of the apron while the chains are passing over the sprocket wheels. The chains are connected at intervals by transverse slats 14, these slats being riveted to projections 15 on certain of the links so as to form rigid connections between the chains.

In the form shown in the first three figures, the wire cloth 16 is of the spiral mesh variety. Each section between two slats constitutes a complete element in itself and the edges are brought up close to the slats on opposite sides of the wire cloth. Around

each slat is wound a spiral wire 17 of an oval form in cross section, and the oval links are united with the spiral mesh wire cloth on both sides by means of transverse wires 18 which extend through the edge links of the wire cloth, and also through the links of the wire 16. The ends of these wires 17 are turned over to unite them firmly with the last links. It has been found in practice that wire mesh aprons when passing over the drum tend to creep to one side and this is particularly true of the spiral mesh variety. For overcoming this feature, each section of wire mesh is located oppositely to the next one before and behind it so that any tendency to creep due to one section is counteracted by the tendency to creep in the opposite direction of the next one.

When it is necessary to remove one of these sections for repairs it is only necessary to straighten the ends of the wires 18 of that section and remove them by a motion parallel with the slats. This instantly frees that section of wire mesh, and a new or repaired section can be put in in a very short time. In this way it is not necessary to displace or interfere in any way with the wire coils 17, and as they are made of larger wire than the wire mesh they tend to last a longer time, the repairs generally coming on the wire mesh itself.

In Fig. 4 I have shown another form in which the invention can be carried out, in which the wire cloth 20 is of the square mesh variety. In this case the selvage is straightened out and the coils 17 introduced between the loops thereof and fastened by wires 18 as before described. In this case the coils 17 are preferably galvanized to the transverse slats so that they are permanently fixed in position.

While I have illustrated and described only two forms of the invention and shown it as applied particularly to a wool drier, I am aware that it can be manufactured in many other forms and applied to many other types of machines 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. The combination with a pair of chains, of transverse slats connecting them, a coil of wire on each slat, wire cloth sections be-

tween the slats, and means for removably attaching the wire cloth sections to the coils.

2. In a conveyer apron, the combination of a plurality of parallel transverse slats, a continuous flattened coil of wire around each of the slats projecting at the front and rear, sections of wire cloth between each two adjacent slats, and means for removably connecting the coils with the wire cloth.

10 3. In a conveyer apron, the combination of transverse slats, sections of wire cloth between each two adjacent slats, and means removable parallel with the slats for connecting the wire cloth with the slats without removing the slats.

15 4. As an article of manufacture, a conveyer apron, comprising transverse slats, a flattened coil of wire on each slat, projecting at the front and rear, a wire cloth section between each two adjacent slats, and a wire parallel with the slats for connecting each edge of each section with the wire coil.

20 5. As an article of manufacture, an endless apron comprising transverse slats, a coil of wire made up of a number of convolutions surrounding each slat, said coils of wire being flattened above and below and projecting beyond the slats at the sides, spiral mesh wire cloth sections between each two adjacent
30 slats, and transverse wires parallel with the slats, one on each side of each slat con-

necting the coils thereon with the coils of the wire mesh, said wires being bent at the ends to hold them in position.

6. As an article of manufacture, an apron 35 of the class described, comprising transverse slats, a coil of wire extending around each slat, wire cloth removably connected at each edge with the coils, and wires parallel with the slats for holding the wire cloth 40 thereto.

7. As an article of manufacture, an apron of the class described, comprising transverse slats, a coil of wire extending around each slat, and wire cloth sections between 45 each two adjacent slats removably connected at each edge with the coils.

8. In an apron of the class described, the combination with a pair of supporting chains, transverse slats connecting said chains, sections of wire cloth between the slats, holding means permanently mounted on each slat, and removable means for connecting said holding means with the wire 50 cloth. 55

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

ALBERT W. THOMPSON.

Witnesses:

WILLIAM H. HAMILTON,
WALTER G. COOK.