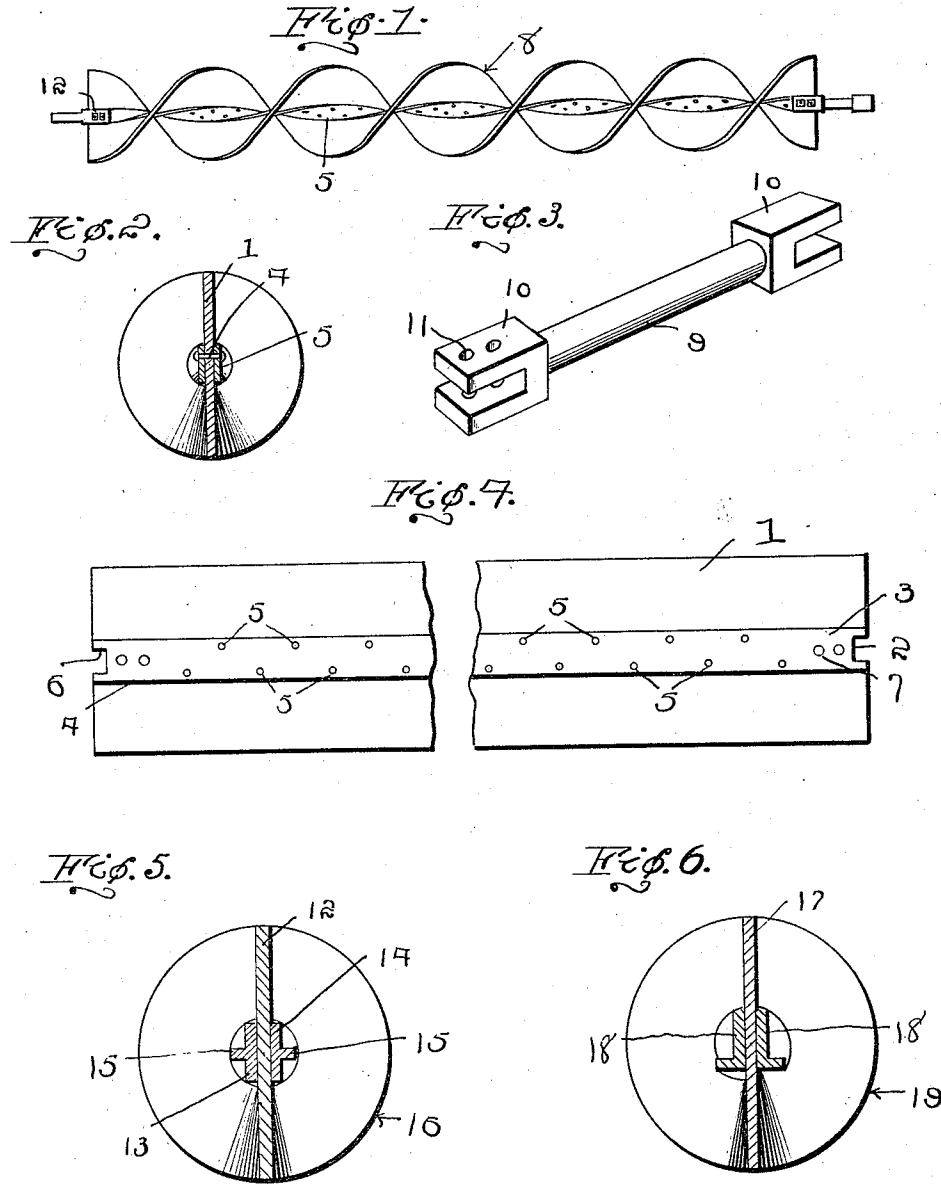


A. L. LINVILLE.
SPIRAL CONVEYER.
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1,286,674.

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SPIRAL CONVEYER.

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To all whom it may concern:

Be it known that I, ALBERT L. LINVILLE, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Spiral Conveyers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in spiral conveyers.

The object of this invention is to provide a spiral conveyer, which is simple and inexpensive in construction and one that can be manufactured and constructed at a comparatively small cost.

A still further object of this invention is to provide a conveyer formed of a single blank of rectangular material, which has secured on its opposite side faces and extending on the longitudinal axis thereof, reinforcing strips and the rectangular sheet and strips are twisted about the longitudinal axis thereof to provide the spiral, thus a cheap and inexpensive spiral conveyer is constructed and one that will not interfere and retard the operation of the material when the device is in use.

A still further object of this invention is to provide a spiral conveyer of this character, which has its opposite ends provided with cut out portions to receive the U-shaped ends of a link connection, whereby the device may be secured in position in a trough or the like.

With these and other objects in view, the invention consists of the novel combination and arrangement of parts hereinafter more fully described and set forth in the claims hereto appended.

In the drawing:

Figure 1 is a view illustrating the conveyer as made in accordance with this invention.

Fig. 2 is a vertical sectional view of the same.

Fig. 3 is a perspective view of the connecting member for the conveyer.

Fig. 4 is a side elevation of the blank from which the conveyer is formed.

Fig. 5 is a vertical sectional view of a slightly modified form of this invention.

Fig. 6 is a vertical sectional view of another slightly modified form of this invention.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

Referring more particularly to the drawing, the numeral 1 indicates a relatively flat substantially rectangular in cross section blank of material of any suitable metal, which has its opposite ends provided centrally with the cut out portion 2.

The body 1 has secured to its opposite side faces on the longitudinal axis thereof, reinforcing strips 3, which strips are substantially rectangular in cross section and are secured to the opposite side faces by the transversely extending bolts 4, which bolts have their opposite ends riveted as at 5 to securely hold the strips to the opposite sides of the body 1. The ends of the strips are flush with the ends of the body 1 and are cut out as at 6 to coincide with the cut out portions 2 of the strips and are provided adjacent their cut out ends and centrally of the side longitudinal edges with the spaced longitudinally arranged openings 7, which are adapted to removably have secured, thereto, a connecting member, which will be hereinafter more fully described.

The reinforcing strips 4 which are secured to the longitudinal axis of the body 1 on the opposite sides thereof reinforce the body and prevent the same from collapsing when twisted to provide spirals. The blank and strips are twisted in the manner illustrated in Fig. 1 on the longitudinal axis to provide the continuous spirals 8, as shown in Fig. 1.

A connecting member comprises a cylindrical body 9 and is provided at its opposite ends with the substantially U-shaped connecting members 10, which connecting members have their web portions formed integrally with the ends of the body 9. The arms of the connecting members are provided with the spaced aligned openings 11, through which are adapted to extend, bolts 12 for removably connecting the same to the opening 7 in the strips 4, which are connected to the body 1, thus facilitating and compensating for securing or connecting the spirals with a suitable power source.

Referring to the modification shown in Fig. 5, there is illustrated the body 12,

which has secured on its opposite side faces on the longitudinal axis thereof, the T-shaped angle irons 13, which angle irons are secured by their heads as shown at 14, thus arranging the stems 15 at right angles to the body 1 and extending laterally therefrom, whereby the body will be reinforced at this portion when twisted. The modification 5 is twisted as described in the preferred form to provide the continuous spirals 16.

Referring to the modification shown in Fig. 6, there is provided the flat body 17, which is substantially rectangular in cross section like the body 12 and the body 1 in the modified and preferred forms. A pair of L-shaped angle irons 18 are secured, each by one flange, to the opposite sides of the body on the longitudinal axis thereof, and their free horizontal flanges extend laterally therefrom adjacent the center of the body on opposite sides thereof. Thus it can be seen that when the body is twisted in the manner described in the preferred form, it will provide the continuous spirals 19, the medial portion will be reinforced and the twisting of the same will not affect the strength and rigidity of the spirals 19.

It is to be understood that the connecting member 9 can be used with either of the modifications shown.

What is claimed is:

1. The hereindescribed method of forming a spiral conveyer consisting in providing a blank with a reinforce at its longitudinal center, and in twisting the blank.

2. In a spiral conveyer comprising a body portion; and a reinforce extending in alinement with the longitudinal axis of the conveyer.

3. In a spiral conveyer comprising a body portion; and a reinforce on opposite sides

of the conveyer and in alinement with the longitudinal axis thereof.

4. The herein described process of forming a spiral conveyer of a single blank consisting in providing the blank with reinforcing strips on its opposite sides at the center thereof, and forming the spirals by grasping the opposite ends of the blank and twisting the blank and strips.

5. The hereindescribed method of forming a spiral conveyer consisting in providing a blank with a reinforce, and twisting the blank from the ends of the reinforce.

6. The hereindescribed method of forming a spiral conveyer consisting in providing a blank having a thickened portion, and twisting the blank from the ends of said portion.

7. The hereindescribed method of forming a spiral conveyer from a blank of material consisting in securing a strip to the blank, and in twisting the blank from the ends of the strip.

8. In combination, a spiral conveyer including a single sheet of metal having a reinforce secured on its opposite side faces and extending longitudinally thereof, said blank and strips adapted to be twisted to provide spirals.

9. In combination, a spiral conveyer including a blank of sheet metal, it being substantially rectangular in cross section, reinforcing strips secured on opposite sides of the blank at the center thereof, said strips and blank being twisted to provide continuous spirals and connecting members for the opposite ends of the spirals and strips.

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

ALBERT L. LINVILLE.

Witnesses:

KARL BURGESS,
L. H. GODMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."