Dec. 12, 1950 J. D. RUST 2,533,631

END CLIP FOR COTTON PICKER SPINDLE SLATS

Filed Dec. 26, 1947

Fig. 1.

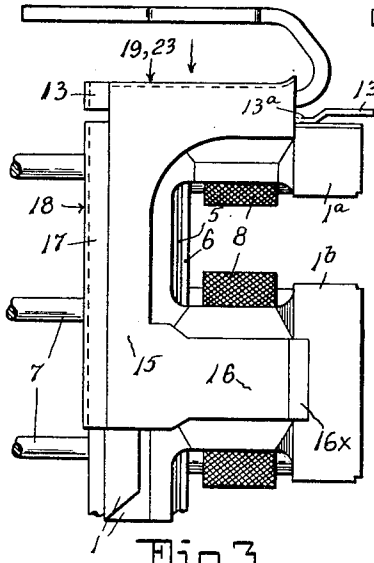


Fig. 2.

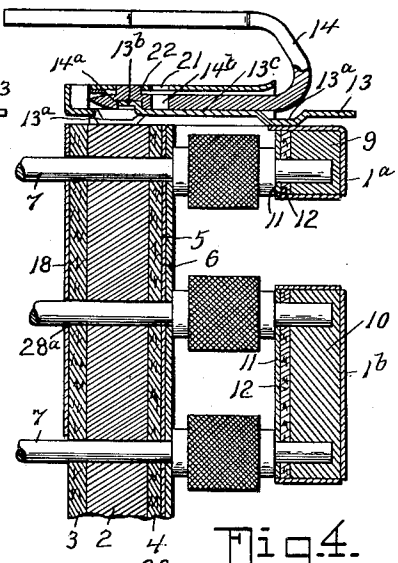


Fig. 3.

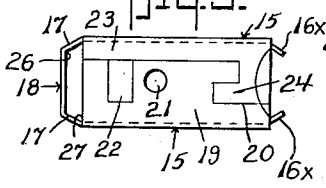
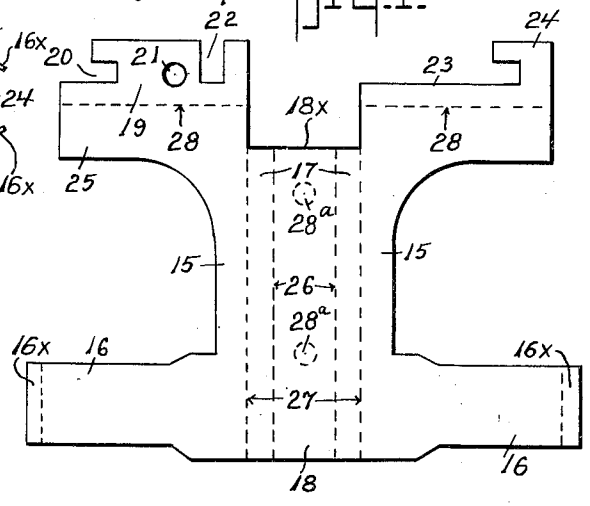


Fig. 4.



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Patented Dec. 12, 1950

2,533,631

UNITED STATES PATENT OFFICE

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END CLIP FOR COTTON PICKER SPINDLE SLATS

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Application December 26, 1947, Serial No. 794,020

9 Claims. (Cl. 56—43)

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My present invention relates to the spindle slats disclosed in my application for patent filed March 29, 1944, Serial No. 528,586, now Patent No. 2,440,-450.

My present invention has for its object to provide a clip of sheet metal that can be stamped and assembled without the use of bolts, screws, rivets or welding.

The clip of the present invention is formed with the front and sides integral and the end formed of interlocked parts.

Other objects will be stated or be obvious hereinafter.

To the attainment of the aforesaid objects and ends, invention resides in the novel features of construction, and cooperation of parts and the method by which the desired results are obtained, reference being had to the accompanying drawing in which:

Fig. 1 is a side elevation of a portion of a slat with my improved end clip applied.

Fig. 2 is a central vertical longitudinal section of the same.

Fig. 3 is a detail top plan view of the improved end clip per se.

Fig. 4 is a flat view of the clip blank prior to bending the same to form.

In the drawing in which like numerals and letters of reference indicate like parts in all the figures, 1 represents the sides of the rib, 1a and 1b the rib casing which rib carries a forward wooden bearing strip 2. Felt strips 3 and 4 lie against the strip 2. The rib casings 1a and 1b carry wooden bearing blocks 9 and 10, fiber strips 11 and felt strips 12.

The backbone which carries the ribs 1 is indicated by 6, and 5 indicates a fiber strip along an edge of the backbone. 7 designates the spindles which are journalled in the wooden bearing strip 2 and blocks 9 and 10. The spindles 7 have rollers 8 to engage suitable trackage along which the slats are carried to rotate the spindles.

14 designates the rectangular hinge plate that is secured to the endless chain of the cotton picker and is detachably connected with the slat by means of a locking key 13. All the foregoing parts are well known and per se are not a part of the present invention.

The improved clip of my invention comprises sides 15, having legs 16, angled side portions 17 which taper from the sides 15 to the integral front wall 18. The legs 16 terminate in converging flanges 16x which engage the sides of the rib 1 and prevent accidental withdrawal of the legs from the rib.

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19 designates one part of the end wall of the clip and 23 indicates the other part. The part 19 has an L-shaped slot in one end while the part 23 has a complementary L-shaped tongue 24.

The part 19 is also provided with a tool passage or hole 21 and a slot 22 for the retaining lug 14a of the hinge plate 14. The hinge plate has a tool passage 14b which, when in the assembled position of the parts, see Fig. 2, lines up with the hole 21, so that by inserting a suitable tool through holes 21, 14b, the tongue 13c of the key 13 can be depressed to release the catch end 13b from the recess 14a of the hinge plate 14 and permit the key to be withdrawn and free the slat from the hinge plate. The key 13 has the usual offsets 13a to rest on the adjacent edges of the rib sides 1 in the usual manner.

The blank from which my new and improved clip is formed is shown in Fig. 4 by reference to which it will be seen that by bending up the sides 15 along dotted lines 27 until the sides are parallel and by offsetting the front wall 18 by bending on the lines 26 and bending up the end sections 19 and 23 on the lines 28 until the sections lie normal to the sides 15 and legs 25 the two end portions 19 and 23 may be interlocked by springing the L-shaped tongue 24 into the L-shaped slot 20. The front wall 18 is cut down below the lines 28, as at 18 (Fig. 4), to provide a key-way for the key 13.

In manufacturing my improved clip the clip is first blanked and formed by means of suitable dies. The tongues 24 are forced into the slots 20 by distorting or springing the material in the process of fabrication before the clip is tempered.

The clip is applied to the rib by springing it into place as will be obvious to those skilled in the art.

The clip is, of course, provided with properly spaced holes 28a to slip over the spindles 7.

By constructing the clip as shown and described, the necessity for using rivets or welding to hold the parts in proper position is avoided.

From the foregoing description, taken in connection with the accompanying drawings, it is thought that the construction, operation and advantages of the invention will readily appear to those skilled in the art.

What I claim is:

1. An end clip for cotton picker slats formed of a single piece of sheet metal to provide two parallel side walls joined by a front wall and including an end wall composed of two parts one of which is integral with one of said side walls and the other of which is integral with the other side

wall, said two parts having interlocking slot and tongue elements, and said front wall having spindle passing holes.

2. An end clip for cotton picker spindle slats formed of a single piece of metal and including two side walls, a front wall connecting said side walls together and a two part end wall, one part projecting from one side wall and the other part projecting from the other side wall, said two parts lying in the same plane, said end wall parts having elements interlocking with one another, said front wall having spindle passing holes, one of said end wall parts having a slot entering from an edge that lies adjacent the opposite edge of the other part.

3. An end clip for cotton picker slats formed of a single piece of sheet metal to provide two parallel side walls joined by a front wall and including an end wall composed of two parts one of which is integral with one of said side walls and the other of which is integral with the other side wall, said two parts having interlocking slot and tongue elements, said front wall having spindle passing holes, and one of said end wall parts having a slot entering from an edge that lies adjacent the opposite edge of the other part.

4. An end clip for cotton picker slats which employs a backbone, ribs and end clips; the improvement which includes a clip having two side walls, a front wall, and a two part end wall, said end wall parts having interlocking elements, said front wall having spindle passages.

5. An end clip for a cotton picker slat which employs a backbone, ribs and end clips; the improvement which includes a clip having two side walls, a front wall connecting said side walls together, and a two part end wall, one part projecting from one side wall and the other part projecting from the other side wall, said two parts lying in the same plane, said end wall parts having elements interlocking with one another, said front wall having spindle passages, and said end wall having a lug receiving slot and a tool passing hole substantially as shown and described.

6. An end clip for cotton picker spindle slats formed of a single piece of springy metal to provide two parallel side walls joined by a front wall and including an end wall composed of two parts one of which is integral with one of said side walls and the other of which is integral with the other side wall, said two parts having interlocking slot and tongue elements, said side walls including legs terminating in converging flanges, said front wall having spindle passing holes.

7. An end clip for cotton picker spindle slats formed of a single piece of springy metal to provide two parallel side walls joined by a front wall and including an end wall composed of two parts one of which is integral with one of said side walls and the other of which is integral with the other side wall, said two parts having interlocking slot and tongue elements, said side walls including legs terminating in converging flanges, said front wall having spindle passing holes, said end wall having a hinge plate knob-receiving slot.

8. An end clip for cotton picker spindle slats formed of a single piece of springy metal to provide two parallel side walls joined by a front wall and including an end wall composed of two parts one of which is integral with one of said side walls and the other of which is integral with the other side wall, said two parts having interlocking slot and tongue elements, said side walls including legs terminating in converging flanges, said front wall having spindle passing holes, said end wall having a hinge plate knob-receiving slot and a tool passing hole.

9. An end clip for cotton picker spindle slats formed of a single piece of metal and including a front wall, two side walls projecting in the same direction in substantial parallelism from the side edges of said front wall, and a two-part end wall having interprojecting elements held at right angles to the front and side walls at one end of the same, said front wall having spindle passing holes.

JOHN D. RUST.

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