

(No Model.)

J. P. THOMPSON.

RAILWAY HEAD FOR COTTON CARDS, &c.

No. 391,663.

Patented Oct. 23, 1888.

Fig. 1.

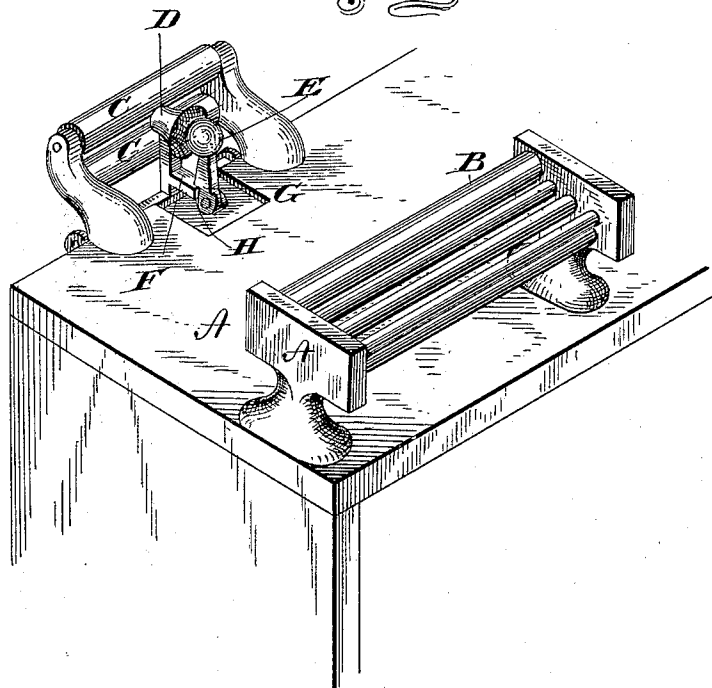
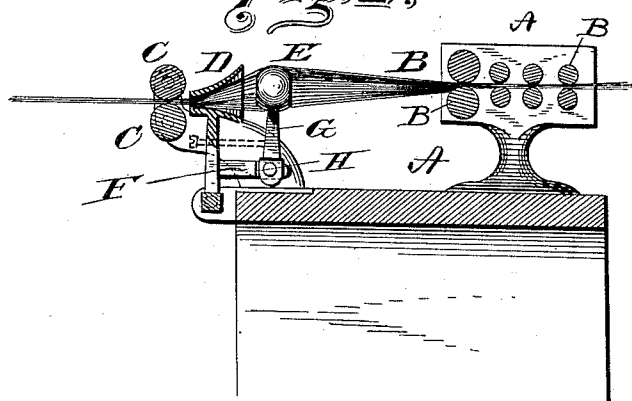


Fig. 2.



WITNESSES,

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RAILWAY-HEAD FOR COTTON-CARDS, &c.

SPECIFICATION forming part of Letters Patent No. 391,663, dated October 23, 1888.

Application filed April 16, 1888. Serial No. 270,801. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. THOMPSON, a citizen of the United States, and a resident of Olneyville, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Railway-Heads for Cotton-Cards, &c.; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved railway-head in its operative position, and Fig. 2 is a vertical sectional view of the same.

My invention relates to railway-heads for cotton-cards in which a rest or guide is placed in front of the trumpet, and has for its object to prevent the sliver from passing into the trumpet unevenly or in a zigzag manner; and it consists in placing a rest, guide, or form upon a vibrating trumpet in front of the mouth of the same, so as to move therewith, as will be hereinafter more particularly described, and pointed out in the claims.

Referring to the accompanying drawings, in which the same letters of reference indicate corresponding parts in each of the figures, A indicates an ordinary railway-head, having the drawing-rolls B and compacting-rolls C C. Directly in front of the compacting-rolls C C is secured, in the usual manner, the friction-trumpet D, through which the sliver passes on its way from the drawing-rolls to the compacting-rolls.

In practice it has been found that as the sliver passes from the drawing-rolls to the compacting-rolls—or to the trumpet, rather—owing to the motion of the machine, it has a tendency to flop up and down, and as it enters the trumpet the outer edge of the sliver is more or less crossed or placed in a zigzag or uneven position in relation to the middle portion of the sliver. In this manner the fibers of the sliver are passed between the compacting-rollers in a crossed and uneven condition, which of course renders the following operation more difficult, as the main object is to place the fibers par-

allel to each other, and if they are crossed over or under one another in one step of the process they must be straightened out in the succeeding steps. When it is considered that the sliver must be changed from a flat web about six or seven inches wide as it leaves the delivery or front rolls to a roll about half an inch in diameter as it passes through the trumpet, it will be seen that the flopping up and down of the sliver will cause the selvages or outer edges of the sliver to waver considerably and pucker or cross the other portions. To overcome this objection, I have found that by placing a form, E, in front of the mouth of the trumpet the sliver can be caused to pass around or upon it in such a manner that it is impossible for the outer edges to become crossed over or under the middle portion, but that they will pass into the trumpet as parallel to each other as when they leave the drawing-rolls. I prefer to make this form in the shape of a flat ball or guide; but it may be of any other desired shape or form. This form or guide is supported upon an arm, F, upon the trumpet-support by means of a neck or support, G. The neck is pivoted to the arm F, so that the form can be turned down out of the path of the sliver for the purpose of putting the end of the sliver into the trumpet first starting the head, or for piecing the sliver in case it should break. The arm F of the trumpet is provided with a stop or projection, H, against which the neck of the form bears when in its raised or operative position, which will prevent the form from being drawn into or too near the mouth of the trumpet, but will permit it to be turned down out of the way, the passage of the sliver around the form causing it to be drawn as near the trumpet all the time as the shoulder or stop upon the arm F will permit. In this manner the form will be at the same distance from the trumpet, although the trumpet be pivotally secured to the frame to permit of its being slightly swung back and forth to compensate for any unevenness in the sliver as it passes from the drawing-rolls, and, if desired, the form may be adjusted in relation to the trumpet by means of an ordinary set-screw, as shown in dotted lines in Fig. 2, to bear against the stop upon the arm F, or in any other suitable manner. In

this manner the sliver is spread around and
 over this form in as thin and even a sheet as
 it is when it leaves the drawing-rolls, and
 any motion that is imparted to it by the mo-
 5 tion or running of the different rolls is stopped
 by contact with the form before the sliver
 passes into the trumpet, and the sliver is thus
 caused to pass into the trumpet in the form of
 a hollow tube, which, on coming in contact
 10 with the small hole in the end of the trumpet,
 is compressed or compacted evenly from its
 entire circumference, instead of having the
 outer edges crowded in upon the middle por-
 tion, as is done without the form. With the
 15 ordinary vibrating trumpet the evener-belt is
 liable to be shifted upon the cone-pulleys by
 the crossing of the edges of the sliver with
 each other and with the central portion as it
 passes through the trumpet, thereby changing
 20 the draft between the rolls and making the
 sliver finer or coarser, when in fact there is
 no change in the weight of the cotton passing
 through the head, and the belt should not have
 been shifted; but with the form in position
 25 the only thing that will cause the evener-belt
 to be shifted is when the sliver is delivered
 from the drawing-rolls unevenly, and it is
 necessary to change the draft to compensate
 for this unevenness or inequality of weight in
 30 the cotton of the sliver. Another advantage
 possessed by my improvement is that it pre-
 vents, to a certain extent, the flopping up and
 down of the sliver as it passes from the draw-
 ing-rolls to the trumpet by interposing a sup-
 35 port between the two, which of course short-

ens the distance from the rolls to the support
 and from the support to the trumpet, and
 prevents such a great movement of the sliver.
 This prevents the wear upon the leather cover-
 ing of the rolls of the drawing-frame in the 40
 next process, as lighter weights can be placed
 upon the top rolls and still have the required
 tension between them to produce good results.
 By my arrangement the rolls will last at least
 twenty-five per cent. longer, and produce a 45
 smoother and more even sliver.

Having thus described my invention, I claim—

1. The combination, with a vibrating trum-
 pet of a railway-head, of an arm secured to 50
 the trumpet-support, a form the neck of which
 is pivotally secured to the arm, and a set-
 screw for regulating the distance between the
 form and the trumpet, substantially as and
 for the purpose set forth. 55

2. The combination, with a vibrating trum-
 pet of a railway-head, of an arm secured to
 the trumpet-support, the outer end of which
 is provided with a shoulder, and a form the
 neck of which is pivotally secured to the outer 60
 end of the arm and bears against the shoulder,
 substantially as set forth.

In testimony that I claim the foregoing as my
 own I have hereunto affixed my signature in
 presence of two witnesses.

JOHN P. THOMPSON.

Witnesses:

SAMUEL E. GARDINER,
 WILLIAM A. PHILLIPS.