

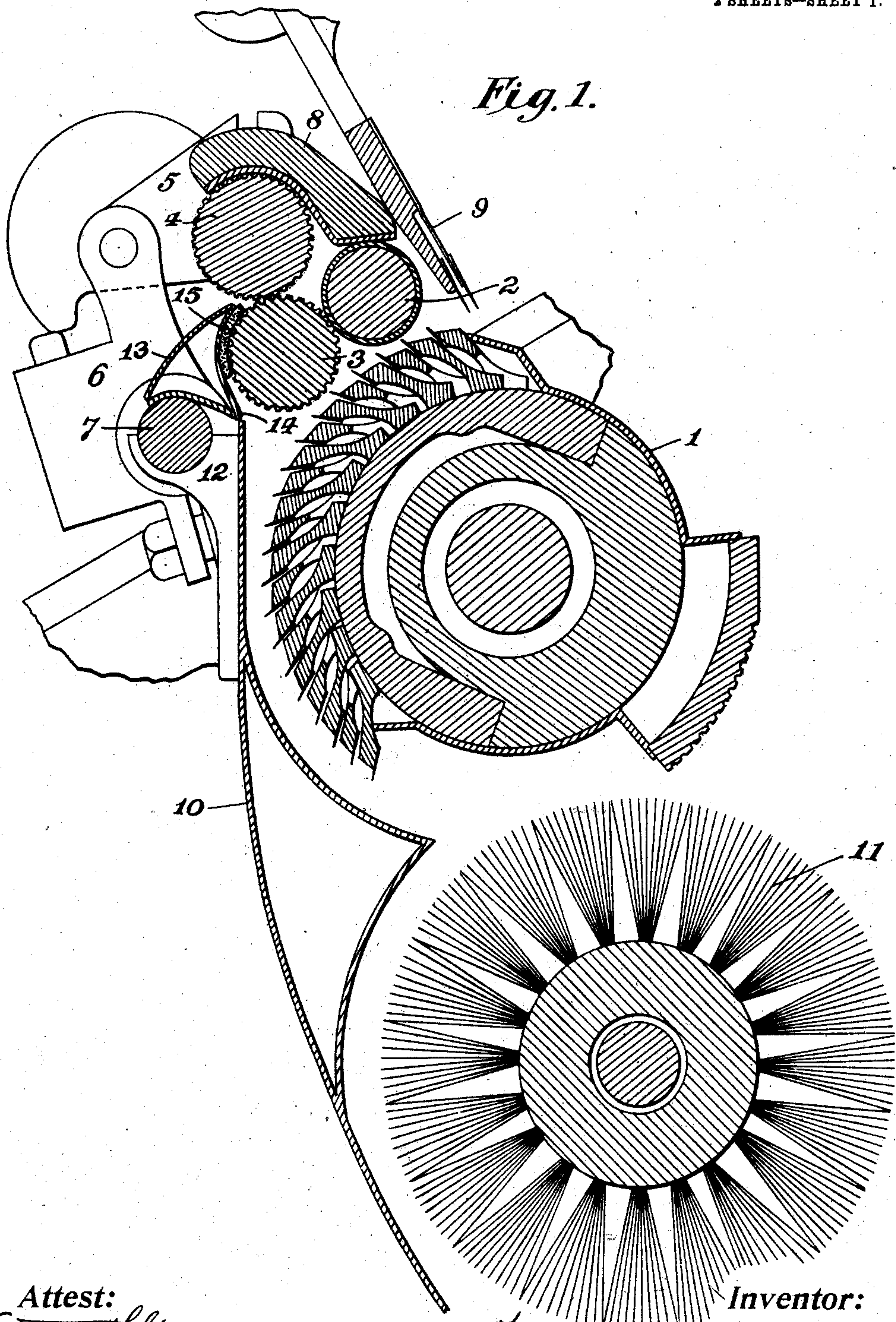
No. 864,184.

PATENTED AUG. 27, 1907.

T. O'CONNELL.
COMBING MACHINE.

APPLICATION FILED JAN. 24, 1907.

2 SHEETS—SHEET 1.



Attest:
Edgeworth Lyne
H. H. Kneeland

Inventor:
Timothy O'Connell
by *McMahon & Quinn* Attys.

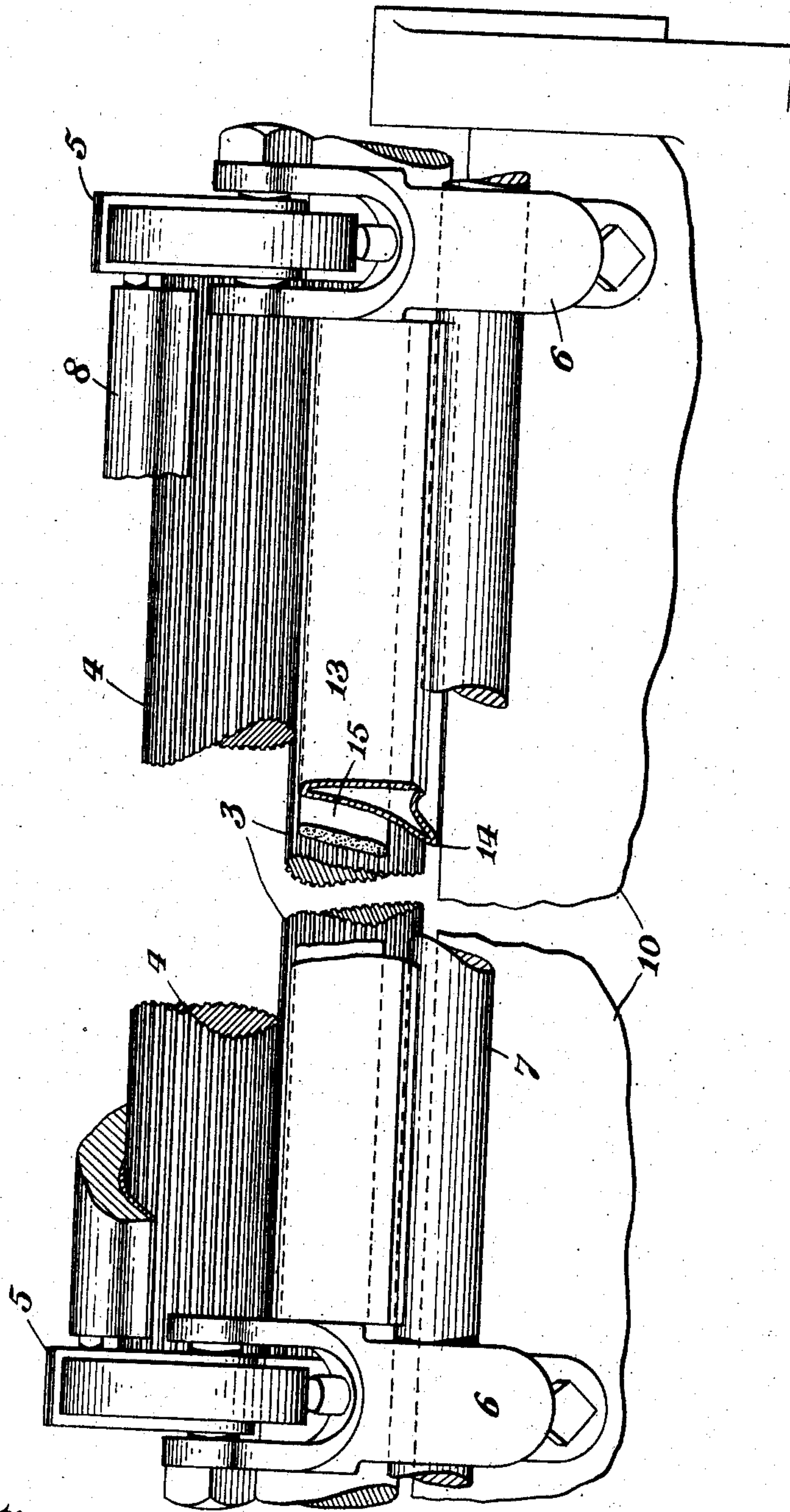
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2 SHEETS—SHEET 2.

Fig. 2.



Attest:
Edgeworth Jones
W. H. Kimball

Inventor:
Timothy O'Connell
by *McNamee & Jones* Attys.

UNITED STATES PATENT OFFICE.

TIMOTHY O'CONNELL, OF HOLYOKE, MASSACHUSETTS, ASSIGNOR TO THE WHITIN MACHINE WORKS, OF WHITINSVILLE, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

COMBING-MACHINE.

No. 864,184.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed January 24, 1907. Serial No. 353,865.

To all whom it may concern:

Be it known that I, TIMOTHY O'CONNELL, a citizen of the United States, and a resident of Holyoke, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Combing-Machines, of which the following is a full, true, and concise specification.

My invention relates to combing machines and more particularly to a means for preventing air drafts around the detaching or piecing rolls thereof, and the invention involves the arrangement and construction of a device adapted to be supported upon or adjacent to said rolls to close the open space between the same and the waste chute, so as thereby to prevent the lint blown through said space by the air generated by the revolving combing cylinder, from being carried out into the room or into contact with the combed sliver, and likewise to prevent the accumulations of lint or dirt upon the lower piecing roll, as will be hereinafter explained and more particularly pointed out in the accompanying claims.

In the two sheets of drawings which form a part of this specification, Figure 1 is a transverse section of parts of a combing machine of the Heilman type, such as shown, for example, in the patent of E. H. Rooney, 822,479, showing my invention applied thereto, and Fig. 2 is a side elevation of Fig. 1 with parts removed and broken out for clearness.

The parts of the combing machine to which my invention is applied and which will be recognized by those familiar in this art, comprise the usual combing cylinder 1, which coöperates with the leather detaching roll 2 to detach the staple from the lap and convey it to the piecing rolls 3 and 4, which latter operate in a well understood manner to produce a continuous ribbon of combed sliver emerging from between the two rolls. The upper of the two piecing rolls is journaled in horse tails 5, pivotally carried by the yokes 6, which are secured to a fixed supporting member or rod 7, the latter extending the length of the machine adjacent to and parallel with the piecing rolls. The usual clearer cover 8, supported by notches in the horse tails, rests upon the two upper rolls adjacent or contiguous to the top comb 9. The partition shown in section and designated 10 is the forward wall of the usual waste chute which serves to inclose the combing cylinder, its cleaning brush 11 and the other apparatus, not shown, for removing and discharging the combings into the waste can. The forward wall of the waste chute is supported by means of bracket lugs 12 thereon which embrace the supporting member 7.

The draft of air which is generated by the revolving combing cylinder has hitherto escaped from the cylinder inclosure through the gap above the waste chute, and in high speed machines is found to have an injurious effect upon the sliver and is otherwise objection-

able. This air current is due to the practically complete inclosure of the upper part of the combing cylinder, by the segment-engaging roll 2 and the lower piecing roll 3, which rolls are in mutual contact, and also by the other apparatus shown in the drawing. All of which has the effect to create a region of air pressure within the waste chute and just below the lower roll 3.

According to this invention, the air draft is obstructed or prevented by means of a guard 13, shown herein as made of sheet metal, bent into the shape of a triangular prism and combined with the parts above described so that it spans the supporting member 7 and the lower piecing roll 3, resting conjointly on both, and has a part designated 14 which is bent inwardly or downwardly toward or into contact with the top of the waste chute, so that the space between the top edge of said chute and the bottom of the roll 3 is effectually closed or at least so that the draft of air therefrom is reduced or deflected away from the region of the combed sliver. The portion of the guard which is adjacent or in contact with the roll may be furnished with a facing 15 of soft material like felt which wipes or cleans the said roll of the loose combings which collect upon it, in the manner of an ordinary clearer cover. The guard or clearer 13 extends the full distance between the horse tails and is removable without difficulty for cleaning the felt facing. The upper face of the guard, when mounted in position, affords an apron or chute upon which the combed sliver travels as it emerges from the rolls.

Having described my invention and fully explained one form thereof, it will be understood that the invention is not limited to the specific construction of the concrete example shown but that differently formed guards may be readily devised and employed with equal effect upon and protection to the sliver.

Claims.

1. In a combing machine of the kind described, a combing cylinder with a detaching segment thereon, a lower piecing roll and a segment-engaging detaching roll in contact with said lower roll, combined with a waste chute below the said lower piecing roll and a guard closing the space between said chute and lower piecing roll, and having a part adapted for contact with said roll.

2. In a combing machine of the kind described, a combing cylinder with a detaching segment thereon, a lower piecing roll and a segment-engaging detaching roll in contact with said lower roll, in combination with the waste chute below said roll and a guard between said parts to prevent an air draft therebetween, said guard being adapted to rest upon said lower piecing roll.

3. In a combing machine, the combination with the lower piecing roll, the waste chute and a supporting member adjacent the roll, of an air guard resting jointly upon said roll and member.

4. In a combing machine, the lower piecing roll, waste chute and supporting rod adjacent the roll, combined with an air guard spanning said roll and rod and having a part extended inwardly toward said waste chute.

5. In a combing machine having piecing rolls and waste chute, a clearer for the lower piecing roll formed of sheet metal with a part bent inwardly toward the waste chute and adapted to prevent an air draft between the same and said roll.
6. In a combing machine having piecing rolls and waste chute, a clearer for the lower piecing roll comprised of a sheet metal strip having soft material secured thereto in clearing contact with the roll and having a part extending into contact with the waste chute.
7. In a combing machine having piecing rolls and waste

chute, a clearer for the lower roll formed of sheet metal bent into the shape of a triangular prism and resting against said roll with one of its faces constituting an apron for the sliver emerging therefrom.

In testimony whereof, I have signed my name to the specification in the presence of two subscribing witnesses.

TIMOTHY O'CONNELL.

Witnesses:

JAMES O'CONNOR,
OSCAR L. OWEN.