

(No Model.)

R. B. DULA & E. F. MAFFRAND.

APPARATUS FOR COLLECTING AND CONVEYING STEMMED TOBACCO.

No. 540,155.

Patented May 28, 1895.

Fig. I.

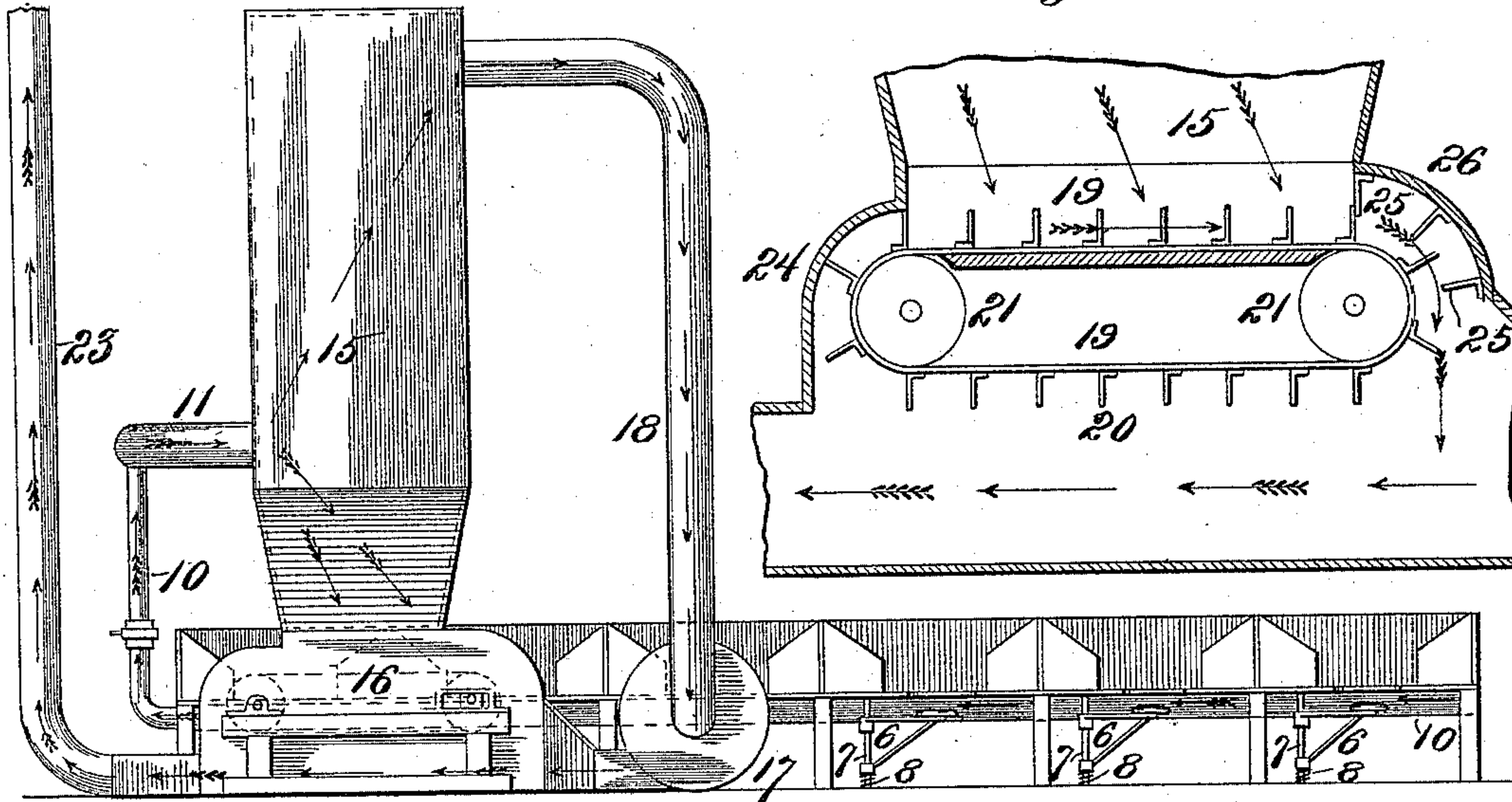


Fig. III.

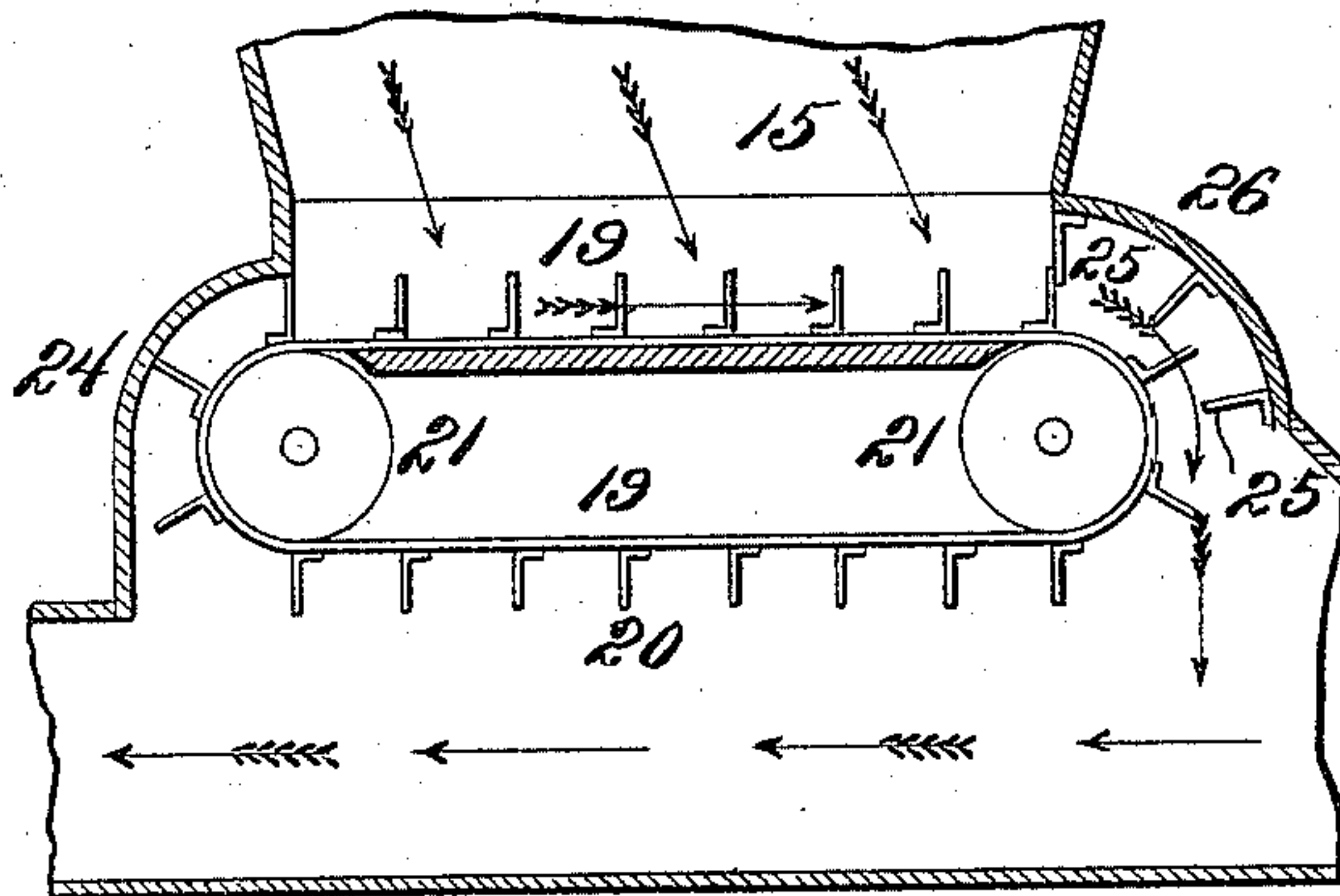


Fig. II.

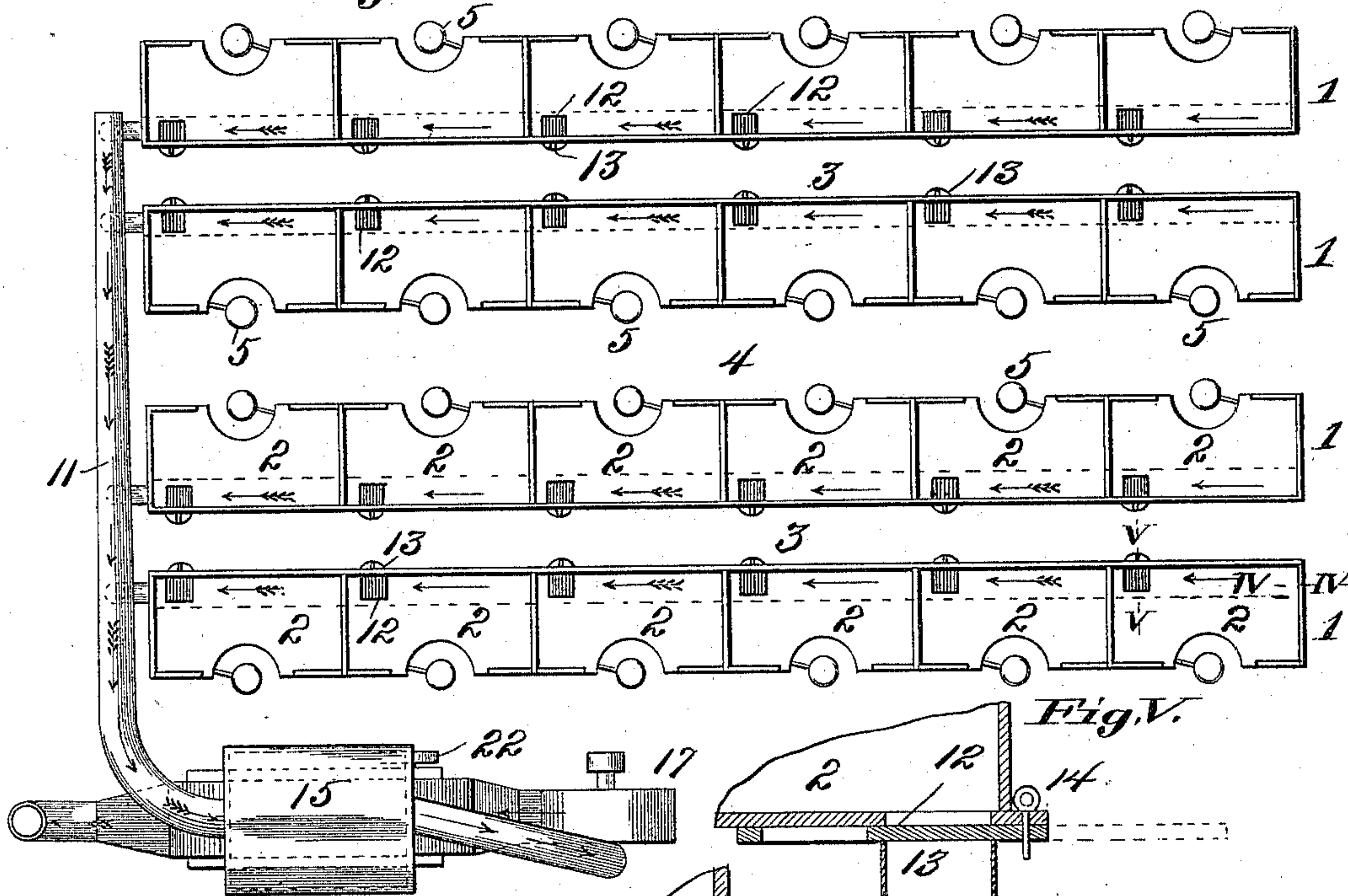


Fig. V.

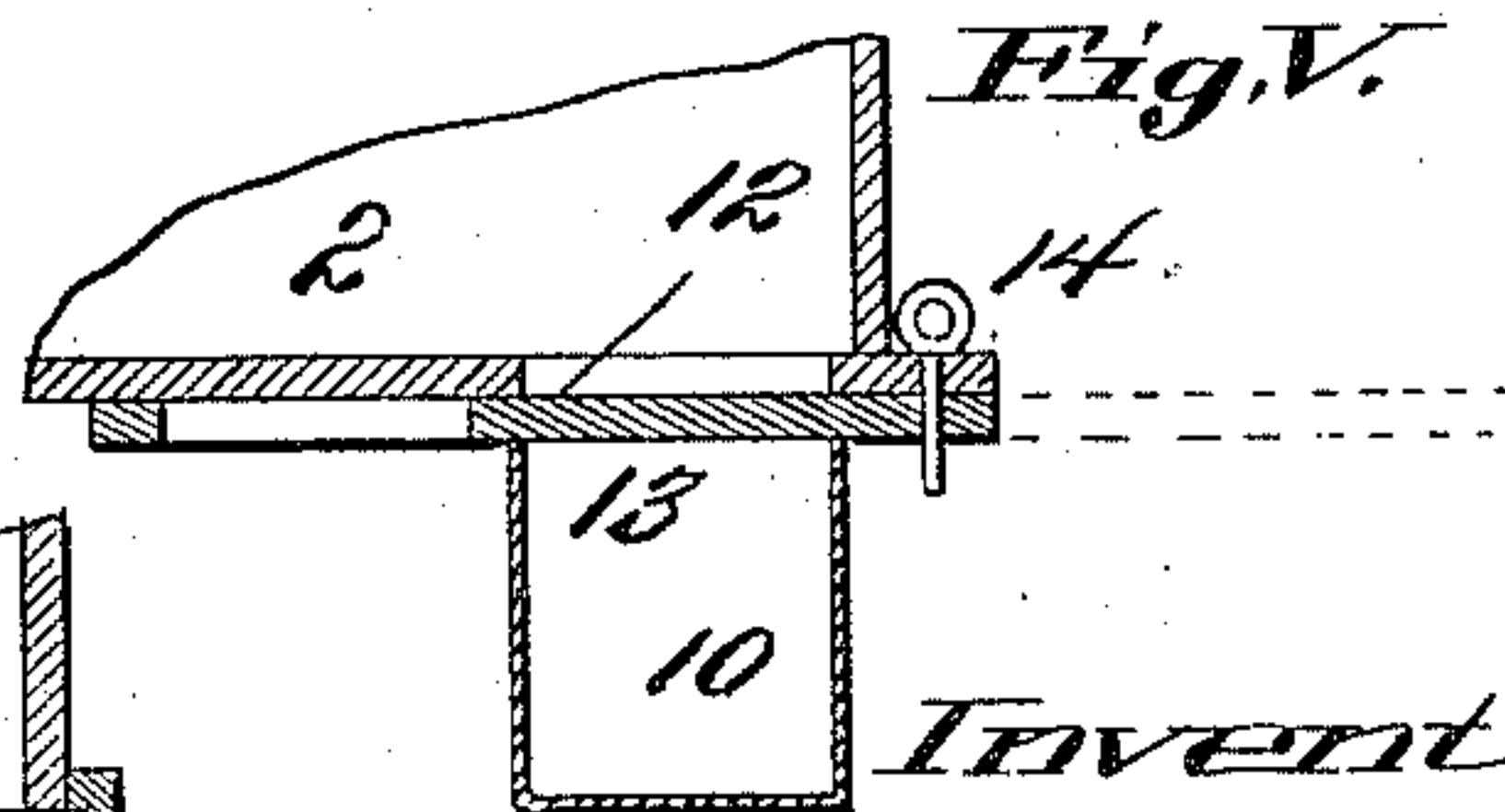
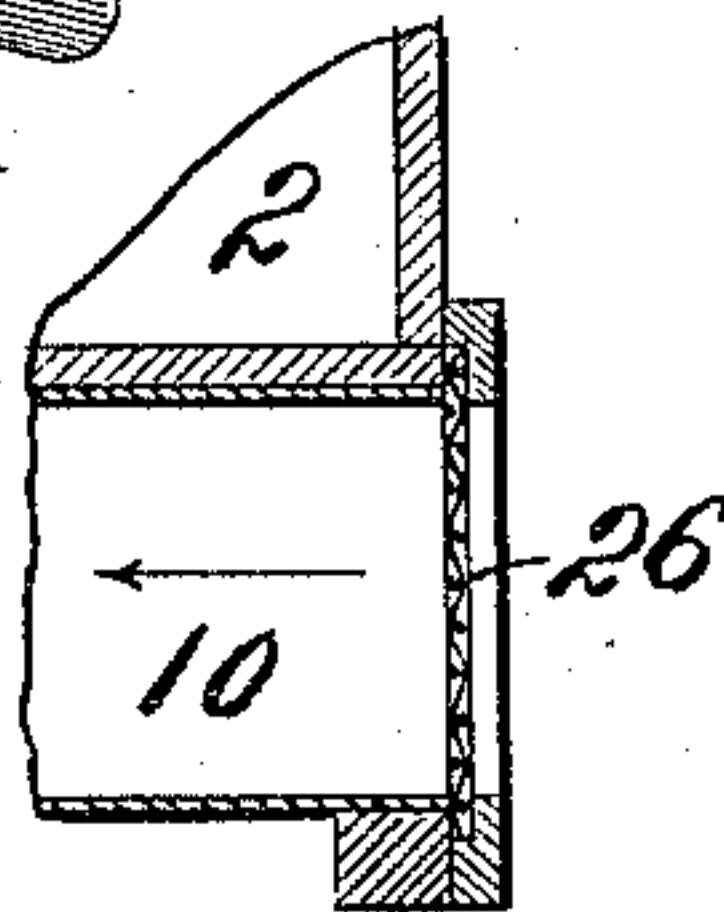


Fig. IV.



Attest:  
E. S. Knight  
A. Finley

Inventors  
Robt. B. Dula  
Emile F. Maffrand.  
By Wright Bros.  
Attys.



# UNITED STATES PATENT OFFICE.

ROBERT B. DULA AND EMILE F. MAFFRAND, OF ST. LOUIS, MISSOURI.

APPARATUS FOR COLLECTING AND CONVEYING STEMMED TOBACCO.

SPECIFICATION forming part of Letters Patent No. 540,155, dated May 28, 1895.

Application filed October 29, 1894. Serial No. 527,406. (No model.)

*To all whom it may concern:*

Be it known that we, ROBERT B. DULA and EMILE F. MAFFRAND, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Apparatus for Collecting and Conveying Stemmed Tobacco, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Our invention relates to an improvement in apparatus for collecting tobacco leaves, after they have been stemmed, from different parts of the stemming room or rooms, and conveying them to any desired place where they may be wanted.

The object of our invention is to provide an apparatus which will avoid the common practice of having to go manually from one stripper to another and collect the stemmed tobacco and then convey it manually to the place where it is to be further treated, and at the same time add to the comfort of the stemmers and the facility with which they can do their work, and at the same time to provide for a more careful and systematic examination of the stemmed tobacco by the inspectors or searchers.

Our invention consists in features of novelty hereinafter fully described and pointed out in the claims.

Figure I is a side elevation illustrative of our invention. Fig. II is a top plan or view. Fig. III is an enlarged detail vertical section through the portion of the apparatus which contains the endless conveyer belts. Fig. IV is an enlarged detail vertical longitudinal section taken on line IV IV, Fig. II; and Fig. V is an enlarged detail vertical transverse section taken on line V V, Fig. IV.

Referring to the drawings, 1 represents long work benches each of which is divided up into a number of compartments, 2, one for each stemmer. The benches are arranged back to back, as shown in Fig. II, with an aisle or passage-way 3 between them, through which the inspector or searcher passes back and forth while making an inspection of the leaves to see that the stemmers have properly done their work and not left parts of stems on the leaves. Between each pair of benches that are placed back to back is a

space 4, in which the stemmers work and pass to and from their compartments.

5 represents seats upon which the stemmers sit in doing their work. These we have shown mounted on brackets 6, swinging on vertical posts 7, so that the seats can be swung around out of the way, and so that the occupants can adjust them to or from the benches as may be most convenient in performing the work.

We have shown coiled springs 8 located beneath the brackets 6 to make the seats still more comfortable.

Extending beneath each bench, and the length thereof, is a pipe or flue 10, each flue connecting with a conveying pipe 11. Each compartment 2 has an opening 12 over its flue 10, and each of these openings is provided with a valve 13, which, in the form we have shown, consists simply of a slide (see Fig. V) which may be held closed by a pin 14. These valves, as will be seen, are arranged so that they can be easily reached by the inspector as he passes back and forth through the aisles 3 and cannot be reached by the stemmers while at work.

As the leaves are stemmed they are thrown to the end of the compartment, where the valve is located. An inspector or searcher walks back and forth through the aisle 3 and examines the leaves of one compartment after another and finding the work properly done, opens the valve and shoves the leaves through the opening 12 into the flues 10, and then closes the valve and passes to the next compartment where the operation is repeated. The stemmers thus have no opportunity to get their work passed without inspection. The pipe 11 connects with a separating box 15, which has an enlarged base or bottom 16. Into this box the tobacco leaves are drawn through the pipe 11 and the flues 10, by means of a fan 17, the fan being connected to the box by a pipe 18. As the air and leaves enter the box 15 they separate, the leaves falling to the bottom of the box, as shown by the full arrows, Fig. I, and the air passes upward and through the pipe 18 to the fan. Within the base of the box is an endless belt 19, provided with cross-pieces 20 and which passes around the rollers or drums 21, one of the rollers being provided with a driving pul-



ley 22. The belt moves in the direction of the arrows, Fig. III, and conducts the leaves from the separating box and discharges them into the bottom of the box. The fan 17 communicates with the bottom of the box at one end of the latter, and 23 is a discharge pipe, communicating with the other end of the box. As the leaves are discharged by the belt 19 into the bottom of the box, they are blown by the fan through the pipe 23 to any point where it may be desired to have the leaves collected. This may be into another story of the building.

It is necessary of course that air from the fan should not be discharged into the box above the endless belt. This is prevented by having a close fit between the cross strips 20 and the rounded end 24 of the box, and is prevented at the other end of the box (where a wider space is needed for the passage of the leaves), by means of flexible strips 25 secured to the rounded end 26, these strips 25 lapping on to the strips 20, as shown in Fig. III. By providing the separating boxes with the endless belt the leaves are not conducted to and do not pass through the fan, while the free passage of the air to the fan is permitted. Thus the leaves are not broken up by passing through the fan, as they would be in the absence of the box 15, and if the pipe 11 connected directly with the fan as in ordinary dust collectors.

The far ends of the flues 10 from the pipe 11 are left open, as shown in Fig. IV, for the admission of air to supply the fan, and to avoid the possibility of foreign matter being drawn into the flues, or being thrown in designedly, we cover these open ends of the flues with screens 27.

The apparatus thus made greatly facilitates the handling of the stemmed tobacco, and affords a better opportunity for its inspection, as well as adding very much to the comfort and ease with which the stemmers can do their work.

We do not herein claim the method of collecting and conveying the stemmed tobacco from the work-benches to the place desired as it forms the subject matter of another application filed of even date herewith and serially numbered 527,407.

We claim as our invention—

1. In an apparatus for collecting and conveying stemmed tobacco, the combination of a fan, a discharge pipe with which the fan communicates, a separating box communicating with said discharge pipe, a conveying pipe delivering into said box, and an air pipe forming a communication between said box and fan, the parts being arranged and operated so as to substantially prevent air from the fan entering the separating box substantially as set forth.

2. In an apparatus for collecting and conveying stemmed tobacco, the combination of

a fan, a discharge pipe with which the fan communicates, a separating box communicating with said discharge pipe, a conveying pipe delivering into said box, an air pipe forming a communication between said box and fan; said air pipe connecting with said box above the point of delivery of said conveying pipe, and all the parts being arranged and operated so as to substantially prevent any air from the fan entering the separating box substantially as set forth.

3. In an apparatus for collecting and conveying stemmed tobacco, the combination of a fan, a discharge pipe with which the fan communicates, a separating box communicating with said discharge pipe, a conveying pipe delivering into said box, an air pipe forming a communication between said box and fan, and means located in the bottom of said box for preventing air entering the box from the fan, substantially as set forth.

4. In an apparatus for collecting and conveying stemmed tobacco, the combination of a fan, a discharge pipe with which the fan communicates, a separating box communicating with said discharge pipe, a conveying pipe delivering into said box, an air pipe forming a communication between the box and the fan, and an endless belt provided with cross bars and located in the bottom of said box, and means co-operating with said belt for conveying the leaves and excluding the passage of air from the fan into the box, substantially as set forth.

5. In an apparatus for collecting and conveying stemmed tobacco, the combination of a fan, a discharge pipe, a conveying pipe, a separating box into which the conveying pipe discharges, means for preventing air from entering the separating box an air pipe forming a communication between said box and fan, work benches, flues communicating with said benches, and valves located in the communications between the benches and the flues.

6. In an apparatus for collecting and conveying stemmed tobacco, the combination of a fan, a discharge pipe, a conveying pipe, a separating box with which the last mentioned pipe connects, means for preventing air from entering the separating box an air pipe forming a communication between said box and fan, work benches divided into compartments and placed back to back, with an aisle between them, flues communicating with said conveying pipe, and valves controlling communications between the compartments of said benches and said flues, said valves being arranged to be operated from the aisles between said benches, substantially as set forth.

ROBT. B. DULA.

EMILE F. MAFFRAND.

In presence of—

E. S. KNIGHT,

W. FINLEY.