

(No Model.)

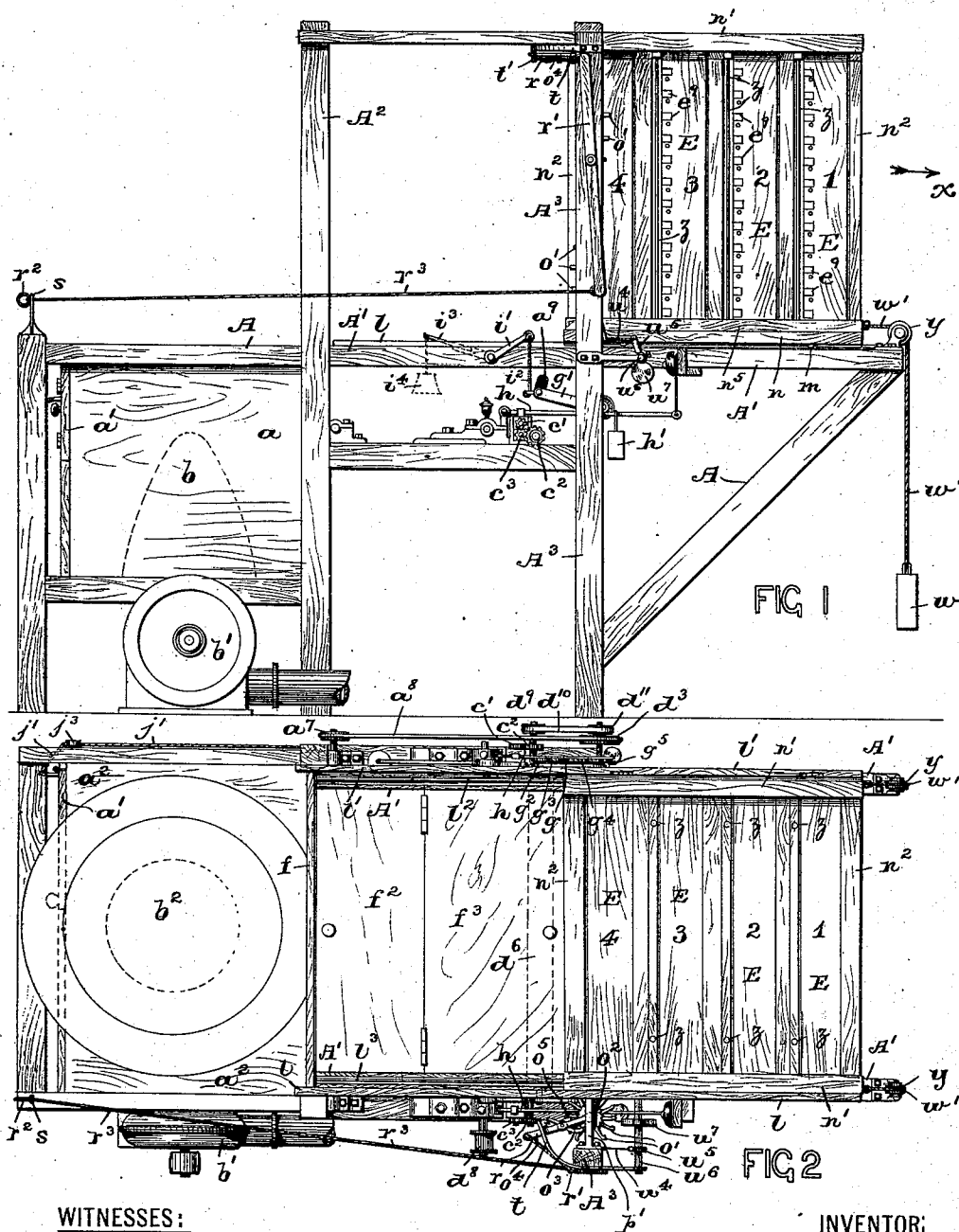
4 Sheets—Sheet 1.

F. F. POOLE.

FUR FEEDING ATTACHMENT FOR HAT FORMING MACHINES.

No. 576,984.

Patented Feb. 9, 1897.



WITNESSES:

W. B. Fraentzel.
Wm. H. Campfield, Jr.

INVENTOR:

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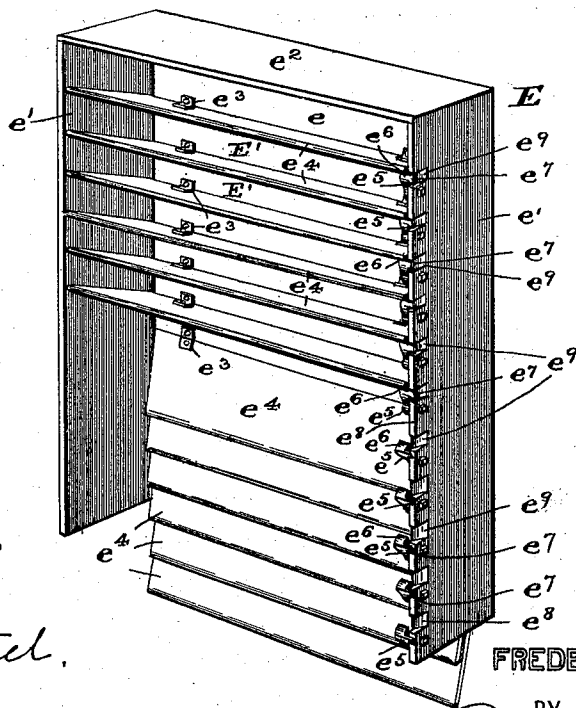
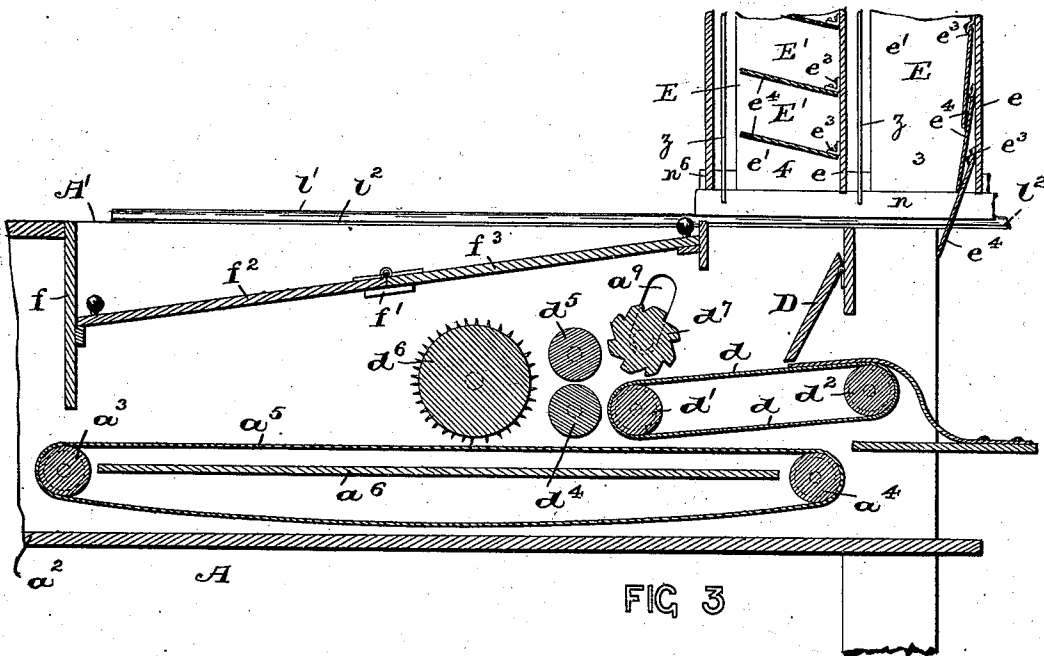
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(No Model.)

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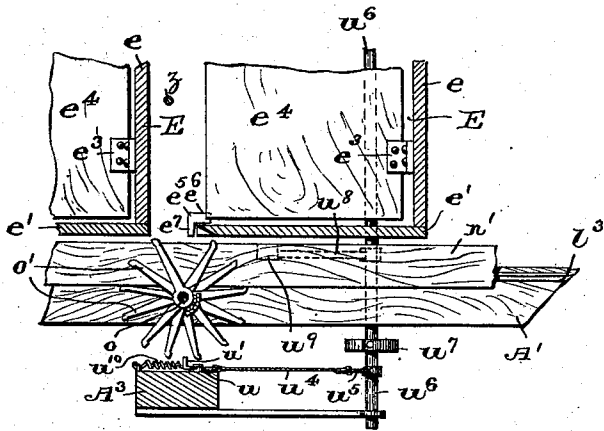


FIG. 5

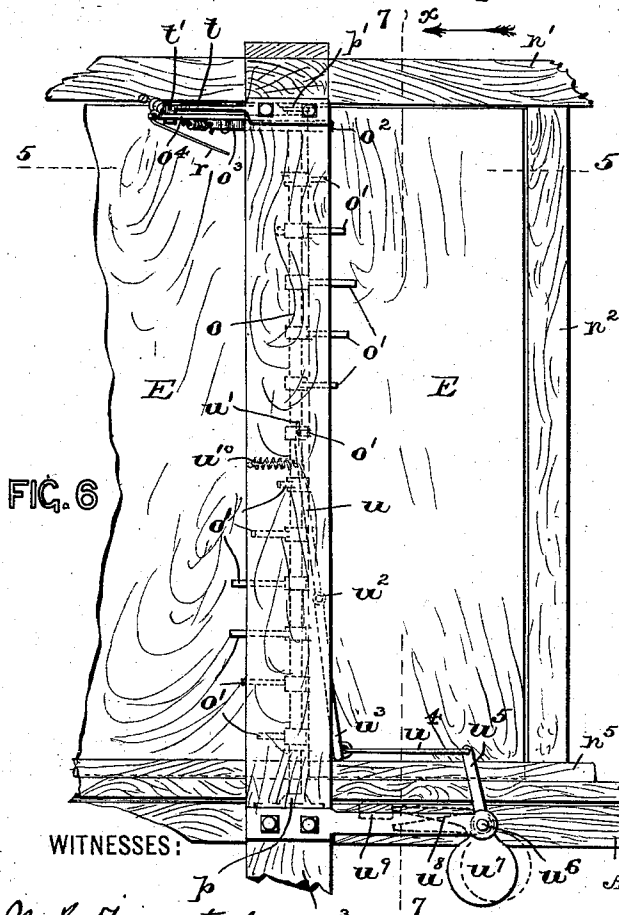


FIG. 6

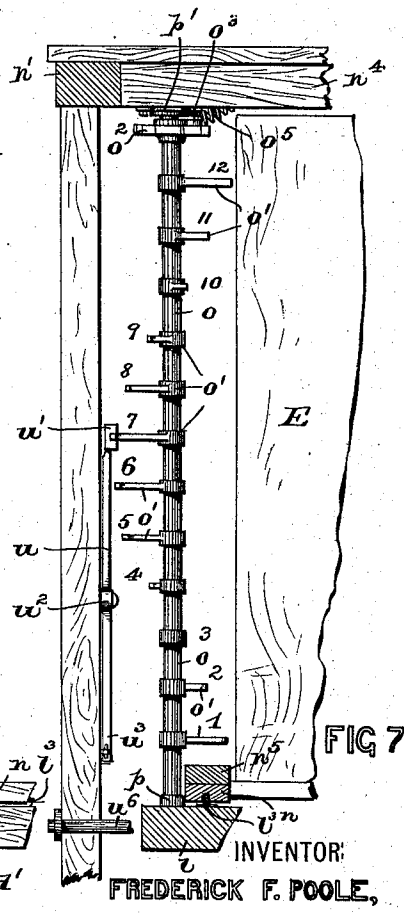


FIG 7

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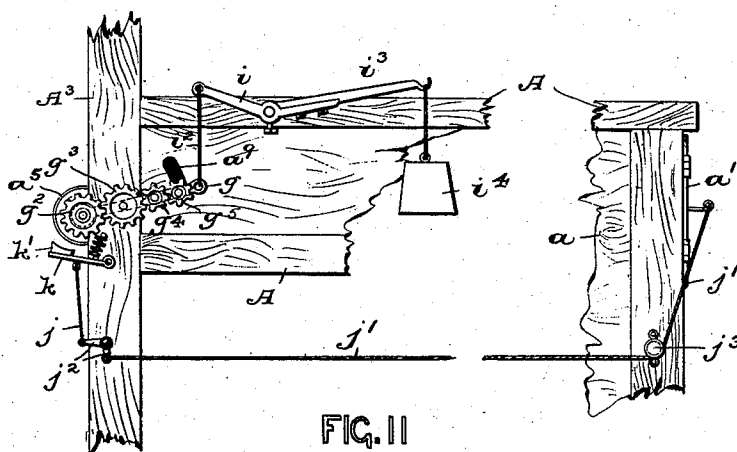
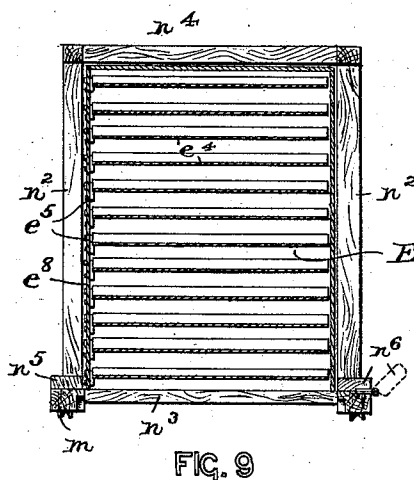
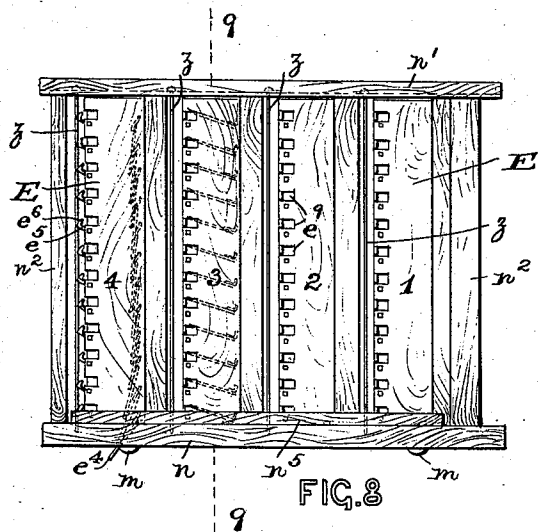
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Patented Feb. 9, 1897.



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UNITED STATES PATENT OFFICE.

FREDERICK F. POOLE, OF NEWARK, NEW JERSEY.

FUR-FEEDING ATTACHMENT FOR HAT-FORMING MACHINES.

SPECIFICATION forming part of Letters Patent No. 576,984, dated February 9, 1897.

Application filed May 14, 1896. Serial No. 591,499. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK F. POOLE, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Fur-Feeding Attachments for Hat-Forming Machines; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My present invention relates to improvements in hat-forming machines, and has for its main object to provide a fur-feeding device to be used in connection with any of the well-known constructions of hat-forming machines for depositing, successively, from compartments in a feed box or boxes certain quantities of fur set aside for the forming of the hat-bodies, one at a time, upon the conductor-board of the machine, from which the deposited fur is then conducted to the forming-cone by air-blast from a blower.

A further object of the invention is to provide, in connection with a hat-forming machine, a series of such feed-boxes movably arranged on the frame of the machine, whereby after one feed-box has been emptied of its contents it is moved from its position over the conductor-board, and a second feed-box having its compartments filled with fur is pushed forward on the frame of the machine into the previously-occupied position of the emptied feed-box.

The invention therefore consists, broadly, in the arrangement and combination, with a hat-forming machine, of several feed-boxes having compartments in each of which a certain quantity of fur is set aside sufficient to form one hat-body, means for causing each compartment to be operated successively, and thereby deposit the fur contained in the compartment upon the conductor-board of the machine to be carried off to the forming-cone on which the hat-body is formed, and means for causing a sliding movement of the feed-boxes on the frame of the machine, whereby an empty feed-box is displaced by a box having its compartments filled with fur.

The invention furthermore consists in the arrangement and combination, with a hat-forming machine, of a feed-box having fur-retaining compartments and a novel means for operating each compartment successively to deposit the fur in the operated compartment upon the conductor-board of the hat-forming machine.

The invention also consists in certain other novel features and combinations of parts and such details of construction, as will be fully described in the accompanying specification and finally embodied in the clauses of the claim appended thereto.

The invention is clearly illustrated in the accompanying sheets of drawings, in which—

Figure 1 is a side elevation of one form of hat-forming machine provided with a fur-feeding device embodying the principles of my invention, and Fig. 2 is a plan or top view of the same. Fig. 3 is a longitudinal vertical section of a portion of a hat-forming machine and portions of the movable feed-boxes in position on the frame of the machine. Fig. 4 is a perspective view of one of the compartment feed-boxes. Fig. 5 is a representation of portions of the feed-boxes, a portion of a carriage movably arranged on the frame of the hat-forming machine, and mechanism for operating the fur-containing compartments of each feed-box, said view being a horizontal section taken on line 5 5 in Fig. 6. Fig. 6 is a side elevation of the parts illustrated in Fig. 5; and Fig. 7 is a vertical section, taken on line 7 7 in Fig. 6, when looking in the direction of the arrow *x* in said Fig. 6. Fig. 8 is a side elevation of a carriage and a series of feed-boxes therein, and Fig. 9 is a vertical cross-section taken on line 9 9 in said Fig. 8. Fig. 10 is a perspective view of one of the holding-catches used in connection with the feed-boxes for retaining the shelves in said boxes in their supported or raised positions. Fig. 11 is a detail view of a portion of the frame of the hat-forming machine, illustrating in connection therewith a train of gearing for operating a vibrating roll over the feeding or conveyor apron of the machine, illustrating the opposite side of the machine from that represented in Fig. 1.

Similar letters of reference are employed

in all of the above-described views to indicate like parts.

In said drawings, Figs. 1, 2, 3, 5, 6, and 7 illustrate my novel construction of feeding device in connection with one form of hat-forming machine, which consists, essentially, of a main frame A, in front of which is the usual case or trunk *a*, provided with the door or doors *a'*. Said case or trunk *a* surrounds the former-cone *b*, against which the fur is conducted from the conductor-board *a²* by the air-blast from a suitable blower *b'*, which is connected by a pipe with the under side of the rotating table, on which the cone is placed, in the usual manner. As will be more especially seen from an inspection of Fig. 3, two rollers *a³* and *a⁴* carry a conveyer-apron *a⁵*, which delivers the fur directly to the usual forms of feed-rollers, rotating picker-cylinder, and a brush-roll, from which the air-current carries the fur to the mouth of the casing or trunk *a*, where it collects upon the forming-cone, as will be clearly understood. The arrangement of these feed-rollers, rotating picker-cylinder, and brush-roll being well known, and being clearly illustrated in my previous Letters Patent of March 24, 1896, No. 556,861, they are not shown in connection with the construction of hat-forming machine represented in the drawings herewith accompanying.

The cone *b* is made in the usual manner of perforated sheet-copper and is placed upon the rotating table, in the center of which is the opening *b²*, (see Fig. 2,) communicating with the exhaust-fan *b*, by means of which an air-current is drawn through the perforations, so that the fur is thereby caused to be deposited on the surface of the cone.

The shaft of the apron-carrier roll *a³* is actuated in the usual manner, and especially by a set of gearing, substantially as illustrated in my previous patent, No. 556,861, to operate the conveyer-apron *a⁵*, which passes over the said rollers *a³* and *a⁴*. Said shafts of the said rollers *a³* and *a⁴* rotate in suitable bearings, substantially as shown. Between the two rollers *a³* and *a⁴* is a suitable partition or base-board *a⁶*, as will be clearly seen from an inspection of Fig. 3. Above the said conveyer-apron *a⁵* of the machine is a second apron *d*, which passes over two rolls *d'* and *d²*, said roll *d²* being actuated by a belt *a⁸*, which passes over a pulley-wheel *a⁷* on the shaft of the apron-roller *a³*, and a pulley-wheel *d³* on the shaft of the roll *d²*, as clearly illustrated in Fig. 2. Directly in front of the apron-roll *d'* is a pair of feed-rollers *d⁴* and *d⁵*, and in front of these is a picker-cylinder *d⁶*, which conveys the fur to the conveying-apron *a⁵*.

Immediately above the roll *d'* and the apron *d* is a vibrating distributing-roll *d⁷*, provided in its cylindrical surface with longitudinally-arranged notches or grooves or other similar means whereby the delivered fur on the apron *d* is evenly distributed, and thus is evenly fed between the two feed-rollers *d⁴* and *d⁵*, as

will be clearly evident from an inspection of Fig. 3. Above the apron *d* I have arranged a suitably-inclined board D.

As has been stated, the roll *d²* is operated from the belt *a⁸* passing over the pulley-wheel *d³*, but the picker roll or cylinder *d⁶* is operated directly from the main cone-pulley *d⁸*. On the shaft of the lower feed-roller *d⁴* is a pulley-wheel *d⁹*, which is operated by a belt *d¹⁰* passing over a second pulley-wheel *d¹¹* on the shaft of the roll *d²*, as clearly represented in Fig. 2, while a gear-wheel *c³* on the shaft carrying the feed-roll *d⁴* is in operative mesh with a gear *c'* on the shaft of the roll *d⁵* to actuate the latter. Said gear *c³* may also be made to mesh with a gear-wheel *c²* on the shaft of the apron-carrying roll *d'*, whereby all undue strain is removed from the conveying-apron *d*, said gears *c'* and *c²* being arranged at or near the opposite ends of their respective shafts, as clearly shown in Fig. 2. To cause the rotary action of said vibratory distributing-roll *d⁷*, its shaft is arranged in the free ends of the arms *g* and *g'*, (see Figs. 1 and 11,) which are secured on the shaft of the apron roll or cylinder *a³*. On the end of the shaft of said roll is a gear-wheel *g²* and on the arm *g* a train of gears *g³*, *g⁴*, and *g⁵*, as shown in said Fig. 11. The shaft of said cylinder *d⁷* is arranged in the slots *a⁹* in the opposite sides of the frame of the machine, and its vibratory motion is controlled by the forked arms *i* and *i'*, pivotally arranged on the sides of the machine and operatively connected by a rod *i²* or other suitable connection with the ends of said arms *g* and *g'*. One of said forked arms, as *i*, or both of them, if desired, has an arm *i³*, the end of which is provided with a suitable weight *i⁴*. A spring-actuated lever *k* is also secured to the frame of the machine, having a brake-shoe *k'*, which is held in the position indicated in Fig. 11 by the action of the ropes *j* and *j'*, connected with a bell-crank *j²* and passing over a grooved wheel *j³* and then attached to the door of the case or trunk *a* in the manner shown. From an inspection of said Fig. 11 it will be seen that when the door is opened to remove the finished hat-body the tension of the ropes or connections *j* and *j'* is removed and the spring *k²* will act upon the lever *k* and force its brake-shoe *k'* into holding engagement with the surface of the apron *a⁵* passing over the said roller *a³*. The several feed-rollers of the machine are controlled by means of the usual forms of weight-arms *h*, carrying the weights *h'*, substantially as illustrated.

Directly above the end of the conveyer-apron *a⁵* is the usual form of partition or wall *f*, and hinged to a suitable cross-piece *f'* of the frame of the machine are the lids *f²* and *f³*, which can be raised to enable the operator to get at the several parts of the machine for cleaning or removing obstructions. Secured to the longitudinal frame-pieces A' of the machine, in any well-known

manner, are suitable guide-strips l and l' , and upon the upper surfaces of said pieces A' are tracks l^2 and l^3 , on which I have arranged a suitable frame or carriage, which, as will be more especially seen from Figs. 8 and 9, consists, essentially, of the longitudinal frame-pieces n , the top pieces n' , the uprights n^2 , and the connecting-pieces n^3 and n^4 . In said longitudinal frame-pieces n are suitably-grooved wheels m , arranged to roll on said tracks l^2 and l^3 . On one of said longitudinal frame-pieces n is a fixed stop-piece n^5 , while the other longitudinal frame-piece n has a hinged stop-piece n^6 , which can be forced back to the position indicated in dotted outline in Fig. 9 to permit the placing in position in said traveling frame or carriage of the feed-boxes E against the stop-piece n^5 , when the stop-piece n^6 can be again closed up and the feed-boxes are thereby securely held in place in the said frame or carriage.

Each feed-box E , containing the required quantity of fur, is of the construction illustrated more especially in Fig. 4 and comprises therein a closed back e , the two sides e' and top e^2 being entirely open at the front and bottom.

Pivotally secured to the back e of each feed-box E by means of suitable forms of hinges e^3 are partition boards or shelves e^4 , of which there are usually twelve, but any other desirable number of such boards may be used. When said boards are in their raised positions to form the compartments E' E' , in which the fur in sufficient quantity to make a hat-body is placed, said boards are held in slightly upwardly-inclined positions by means of holding-catches e^5 , which are pivotally secured to the inner surface of one of said sides e' , as shown in Figs. 4 and 5. Each catch e^5 is provided with a slightly-curved tongue or holding-stud e^6 , which is placed under the edge of the shelf e^4 , and thus holds the same in its raised position, as will be clearly understood from an inspection of said Fig. 4. Each catch e^5 is also provided with a lip or projection e^7 , extending at one side of the catch, as shown in Fig. 10, said lip or projection e^7 , when the catches are in the positions to support the shelves, being arranged directly in front of the edge e^8 of the side e' of the box E and the chamfered or cut-away portions e^9 in said edge; but when the holding-catch has been forced from its holding engagement with the shelf e^4 then said lip or projection e^7 on the catch will come in contact with said edge e^8 and the catch will be held in this position, as clearly illustrated in the lower half of the box represented in Fig. 4. To cause said shelves or boards e^4 to drop from their raised positions to deposit the fur thereon upon the conveyer-apron d in the hat-forming machine, I have secured in suitable bearings p and p' in the frame portions of the main frame of the machine a vertical shaft or rod o , as clearly indicated in Figs. 5, 6, and 7. On said shaft or rod o are certain

actuating-arms o' , which are spirally arranged on said rod, being equally spaced apart and corresponding in number to the number of shelves e^4 in each feed-box E , said arms being spaced in top view, as clearly illustrated in Fig. 5, and forming between the lowest and the highest arm a space which is twice as great as the space between any other two arms when measured on the circumference of a circle passing through the plane of projection formed by the cylindrical surface passing through the extreme ends of said arms o' . On said post or shaft o , at or near the top thereof, is a ratchet-wheel o^2 , having a spring-actuated pawl o^3 in engagement therewith. Said shaft or post o is also provided with an operating-lever o^4 , to which is fastened a flexible connection r , which is connected with the end of a rod r' , pivotally arranged on a post A^3 , and r^2 is a second connection attached to the lower end of said rod r' (see Fig. 1) and extends forwardly to the front of the machine, where it can be held in position by a ring r^2 coming in contact with a post s , having a hole through which the flexible connection is passed. Said post s is placed in a position to the right of the door or doors in the truck or case a of the machine for convenient handling by the operator.

Now when all the compartments in the several feed-boxes E have been filled with the proper quantity of fur in each compartment E' , then said boxes are placed upon the carriage or traveling frame, which is moved forward upon its tracks in order to bring the feed-boxes in the space between the uprights A^2 and A^3 of the machine, and the box numbered "1" will be directly above the inclined board or partition D and the arms o' on the vertical shaft o in the positions indicated more particularly in Fig. 5.

As soon as the workman starts the machine he pulls the flexible connections r and r^3 to actuate the lever o^4 . At the same time the pawl o^3 engages with the ratchet-wheel o^2 and causes a partial rotation of the vertical shaft o in its bearings, thereby bringing the lowest arm o' , numbered "1," against the lip or projection e^7 of the catch e^5 in holding or supporting engagement with the lowest shelf e^4 in the feed-box, disengaging its nosing or tongue e^6 from said shelf and allowing said shelf to drop, whereby the fur in said lowest compartment will be spread upon the apron d across the entire width of said apron. The fur immediately passes through the feed-rolls d^4 and d^5 upon the picker-cylinder d^6 to the apron a^5 , which conveys it to the other parts of the machine and finally to the forming-cone, in the manner as has been hereinabove fully described. When the flexible connection r is released by the operator, a spring o^5 causes the normal return of said lever o^4 , bringing the same against a stop t' on a bar t , secured to said upright A^3 , as will be evident from Figs. 1, 2, and 5. When the fur has been deposited upon the cone, which is

very rapidly done, said cone is removed and replaced by a second cone. The workman again pulls upon the flexible connection r^3 , thereby producing in like manner another partial turn of the vertical shaft or post o , and the next higher arm o' , marked "2," is brought against the catch c^5 on the next higher shelf e^4 of the feed-box E, causing the fur to be spread over the entire width of the apron, to be finally delivered and collected upon the cone, after which the spring o^5 again returns the actuating-lever o^4 to its normally inoperative position. In this manner the several arms o' , numbered from "3" to "12," are successively operated, causing the several shelves e^4 in the feed-box E, numbered "1," to drop in like manner and successively deposit the fur in the several compartments of said box upon the apron d . As soon as all the compartments in box "1" have been relieved of their contents then the several arms o' stand in the positions indicated in Fig. 5, and the next pull on the connection r^3 will bring the end of the arm o' , marked "7," (see Fig. 7,) against a plate w' on a lever u , which is pivoted at u^2 to the upright A^3 , as shown, and as said rod or shaft o is turned in the manner hereinabove described the lower end u^3 of said lever u actuates a connection u^4 , secured to an arm u^5 , pivotally arranged on the side of the framework of the machine on a shaft u^6 , as clearly illustrated in Figs. 5 and 6. Said arm u^5 is provided with a heavy weight w^7 , and on said shaft u^6 is a second arm or finger u^8 , which is in normal engagement with a stop or projection w^9 on the framework of the machine. During the partial rotation of the said shaft or post o through the distance formed between the arms o' , numbered "12" and "1," (see Fig. 5,) the arm or finger u^8 is disengaged from the said stop w^9 , as indicated in dotted outline in Fig. 6, and the weights w , secured by means of ropes w' to the traveling frame or carriage on the framework of the hat-forming machine, and which also pass over suitably-grooved wheels γ on said framework, will cause said traveling frame or carriage to move in the direction of the arrow x' . (See Fig. 1.) At the same time said arm o' , numbered "7," has passed over the end plate w' of the lever u , when a spring u^{10} again returns said lever u to its normal position, bringing the finger or arm u^8 on the shaft u^6 once more into its locked engagement with the stop or projection w^9 on the framework of the machine. The second feed-box E, numbered "2," has thus been brought directly above the opening over the inclined wall or partition D, and the operator, by successively operating the flexible connections r and r^3 , can now successively empty all of the compartments E' in said second feed-box in the manner hereinabove described; and when said compartments in said box "2" have been emptied then box "3" is moved forward in the direction of the arrow x' in Fig. 1, directly above the opening over the inclined

partition D, as has been described and as will be clearly understood.

To prevent the fur from dropping out of the front of the feed-boxes E, suitable rods z are arranged in the framework of the box-holding frame or carriage, as clearly shown in Figs. 1, 2, and 3, but any other suitable means may be employed for this purpose.

From the above description it will be evident that I may use any suitable number of feed-boxes E on one hat-forming machine, and each box E may be provided with any desirable number of compartments E'; and by the various combinations and arrangements of the mechanism hereinabove described I have produced a practical and operative machine, the operation being substantially that of a person feeding fur at intervals into the machine and upon the conductor-board, thereby resulting in a great saving of time and labor.

Of course it will be evident that many changes may be made in the details of construction and in the minor arrangements and combinations of the several parts. Hence I do not limit my invention to the exact arrangements and combinations of the parts herein shown and described.

Having thus described my invention, what I claim is—

1. The combination, with the mechanism of a hat-forming machine, of a feed-box arranged on the frame of the machine, means connected with said box for causing a sliding motion of the same, and mechanism also connected with said feed-box, operating to deposit the fur in said box into the hat-forming machine, substantially as and for the purposes set forth.

2. The combination, with the mechanism of a hat-forming machine, of a traveling frame or carriage, a feed-box arranged on said frame, means connected with said frame for causing a sliding motion of the same, and mechanism connected with the feed-box, operating to deposit the fur into the hat-forming machine, substantially as and for the purposes set forth.

3. The combination, with the mechanism of a hat-forming machine, of a feed-box arranged on the frame of the machine, compartments in said box, means connected with each compartment, operating to separately deposit the fur in said compartments into the hat-forming machine, and mechanism connected with said feed-box for causing a sliding motion of the same, substantially as and for the purposes set forth.

4. The combination, with the mechanism of a hat-forming machine, of a traveling frame or carriage, a feed-box arranged on said carriage, means connected with said carriage for causing a sliding motion of the same, compartments in said feed box or boxes, and means connected with each compartment, operating to separately deposit the fur in said compartments into the hat-forming machine, substantially as and for the purposes set forth.

5. The combination, with the mechanism of a hat-forming machine, of a feed-box arranged on the frame of the machine, means connected with said box for causing a sliding motion of the same, hinged or pivoted shelves in said box, means for retaining said shelves in their raised positions to form compartments, and mechanism connected with each compartment, operating to deposit the fur in said compartments into the hat-forming machine, substantially as and for the purposes set forth.

6. The combination, with the mechanism of a hat-forming machine, of a traveling frame or carriage, means connected therewith for causing a sliding motion of the same, a feed-box on said carriage, hinged or pivoted shelves in said boxes, means for retaining said shelves in their raised positions to form compartments, and mechanism connected with each compartment, operating to deposit the fur in said compartments into the hat-forming machine, substantially as and for the purposes set forth.

7. The combination, with the mechanism of a hat-forming machine, of a traveling frame or carriage, a feed-box arranged on said frame, having hinged or pivoted shelves, holding-catches e^5 , having holding-tongues e^6 for retaining said shelves in their raised positions, to form compartments, projections e^7 on said catches, and mechanism adapted to engage with said projections and operating to deposit the fur in said compartments into the hat-forming machine, substantially as and for the purposes set forth.

8. The combination, with the mechanism of a hat-forming machine, of a feed-box arranged on the frame of the machine, having hinged or pivoted shelves, holding-catches e^5 , having holding-tongues e^6 for retaining said shelves in their raised positions, to form compartments, projections e^7 on said catches, and mechanism adapted to engage with said projections and operating to deposit the fur in said compartments into the hat-forming machine, consisting, essentially, of a vertical shaft, spirally-disposed arms o' on said shaft, and means for causing the operation of said shaft, substantially as and for the purposes set forth.

9. The combination, with the mechanism of a hat-forming machine, of a feed-box arranged on the frame of the machine, having hinged or pivoted shelves, holding-catches e^5 , having holding-tongues e^6 for retaining said shelves in their raised positions, to form compartments, projections e^7 on said catches, and mechanism adapted to engage with said projections and operating to deposit the fur in said compartments into the hat-forming machine, consisting, essentially, of a vertical shaft, spirally-disposed arms o' on said shaft, a ratchet-wheel on said shaft, a lever o^4 having a pawl adapted to actuate said ratchet-wheel, a pivoted lever r' and flexible connec-

tions r and r^3 , substantially as and for the purposes set forth.

10. The combination, with the mechanism of a hat-forming machine, of a traveling carriage or frame, two or more feed-boxes on said carriage, and mechanism connected with said carriage for causing a sliding motion of the same, substantially as and for the purposes set forth.

11. The combination, with the mechanism of a hat-forming machine, of a traveling carriage or frame, two or more feed-boxes on said carriage, and mechanism connected with said carriage for causing a sliding motion of the same, consisting, essentially, of a pivoted lever u , a shaft u^6 , weight u^7 , arm u^5 , connection u^4 between said lever u and arm u^5 , a tongue or finger u^8 and a stop u^9 , and means adapted to actuate said lever u , substantially as and for the purposes set forth.

12. The combination, with the mechanism of a hat-forming machine, of a traveling carriage or frame, two or more feed-boxes on said carriage, and mechanism connected with said carriage for causing a sliding motion of the same, consisting, essentially, of a pivoted lever u , a shaft u^6 , weight u^7 , arm u^5 , connection u^4 between said lever u and arm u^5 , a tongue or finger u^8 and a stop u^9 , and means adapted to actuate said lever u , comprising a vertical shaft o , an arm or arms o' thereon, and means for causing the operation of said shaft, substantially as and for the purposes set forth.

13. The combination, with the mechanism of a hat-forming machine, of a traveling frame or carriage, two or more feed-boxes on said carriage, having hinged or pivoted shelves, holding-catches e^5 , having holding-tongues e^6 for retaining said shelves in their raised positions to form compartments, projections e^7 on said catches, mechanism adapted to engage with said projections and operating to deposit the fur in said compartments into the hat-forming machine, and mechanism connected with said carriage for causing a sliding motion of the same, consisting, essentially, of a pivoted lever u , a shaft u^6 , weight u^7 , arm u^5 , connection u^4 between said lever u and arm u^5 , a tongue or finger u^8 and stop u^9 , and means adapted to actuate said lever u , substantially as and for the purposes set forth.

14. The combination, with the mechanism of a hat-forming machine, of a traveling frame or carriage, two or more feed-boxes on said carriage, having hinged or pivoted shelves, holding-catches e^5 , having holding-tongues e^6 for retaining said shelves in their raised positions to form compartments, projections e^7 on said catches, mechanism adapted to engage with said projections and operating to deposit the fur in said compartments into the hat-forming machine, and mechanism connected with said carriage for causing a sliding motion of the same, consisting, essentially,

of a pivoted lever u , a shaft u^6 , weight u^7 , arm u^5 , connection u^4 between said lever u and arm u^5 , a tongue or finger u^8 and stop u^9 , and means adapted to actuate said lever u ,
 5 comprising a vertical shaft o , an arm or arms o' thereon, and means for causing the operation of said shaft, substantially as and for the purposes set forth.

15. The combination, with the mechanism
 10 of a hat-forming machine, of a traveling carriage or frame, two or more feed-boxes on said carriage, having hinged or pivoted shelves, holding-catches e^5 , having holding-tongues e^6 for retaining said shelves in their raised positions to form compartments, projections e^7 on
 15 said catches, mechanism adapted to engage with said projections and operating to deposit the fur in said compartments into the hat-forming machine, consisting, essentially,
 20 of a vertical shaft, spirally-disposed arms o' on said shaft, a ratchet-wheel on said shaft, a lever o^4 having a pawl adapted to actuate said ratchet-wheel, a pivoted lever r' and flexible connections r and r^3 , and mechanism connected with said traveling carriage for causing
 25 a sliding motion of the same, consisting, of a pivoted lever u , a shaft u^6 , weight u^7 , arm u^5 , connection u^4 between said lever u and arm u^5 , a tongue or finger u^8 and stop u^9 ,
 30 all arranged, substantially as and for the purposes set forth.

16. In combination, with the mechanism of a hat-forming machine, of a conveyer-apron d , a pair of feed-rolls d^4 and d^5 , a picker-cylinder d^6 , a vibrating distributing-roll d^7 ,
 35 gear mechanism for operating said roll, a feed-box arranged on the frame of the machine, and mechanism connected with said box and operating to deposit the fur in said
 40 box upon the apron d , substantially as and for the purposes set forth.

17. In combination, with the mechanism of a hat-forming machine, of a conveyer-apron d , a pair of feed-rolls d^4 and d^5 , a picker-cylinder d^6 , a vibrating distributing-roll d^7 ,
 45 gear mechanism for operating said roll, a feed-box arranged on the frame of the machine, hinged or pivoted shelves in said box,

means connected with said shelves for normally retaining them in their raised positions
 50 to form compartments, and mechanism connected with each compartment, operating to deposit the fur in said compartments into the hat-forming machine, substantially as and
 55 for the purposes set forth.

18. In combination, with the mechanism of a hat-forming machine, of a conveyer-apron d , a pair of feed-rolls d^4 and d^5 , a picker-cylinder d^6 , a vibrating distributing-roll d^7 ,
 60 gear mechanism for operating said roll, a feed-box arranged on the frame of the machine, hinged or pivoted shelves in said box, holding-catches e^5 , having holding-tongues e^6 for retaining said shelves in their raised positions, to form compartments, projections e^7
 65 on said catches, and mechanism adapted to engage with said projections and operating to deposit the fur in said compartments into the hat-forming machine, substantially as
 70 and for the purposes set forth.

19. In combination, with the mechanism of a hat-forming machine, of a conveyer-apron d , a pair of feed-rolls d^4 and d^5 , a picker-cylinder d^6 , a vibrating distributing-roll d^7 ,
 75 gear mechanism for operating said roll, a feed-box arranged on the frame of the machine, hinged or pivoted shelves in said box, holding-catches e^5 , having holding-tongues e^6 for retaining said shelves in their raised positions, to form compartments, projections e^7
 80 on said catches, and mechanism adapted to engage with said projections and operating to deposit the fur in said compartments into the hat-forming machine, consisting, essentially,
 85 of a vertical shaft, spirally-disposed arms o' on said shaft, and means for causing the operation of said shaft, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 90
 9th day of May, 1896.

FREDERICK F. POOLE.

Witnesses:

FREDK. C. FRAENTZEL,
 WM. H. CAMFIELD, Jr.