No. 721,787. PATENTED MAR. 3, 1903.

F. C. DORMENT.

ADVERTISING AUTOMATON.

APPLICATION FILED OCT. 16, 1901.

NO MODEL. 7 SHEETS—SHEET 1.

Fig. 1

Witnesses:
D. E. Wood
B. to B. Earl

Inventor,
Frank C. Dorment
By Fred L. Haskell
Atty.

No. 721,787. PATENTED MAR. 3, 1903.

F. G. DORMENT.

ADVERTISING AUTOMATON.

APPLICATION FILED OCT. 16, 1901.

NO MODEL. 7 SHEETS—SHEET 2.

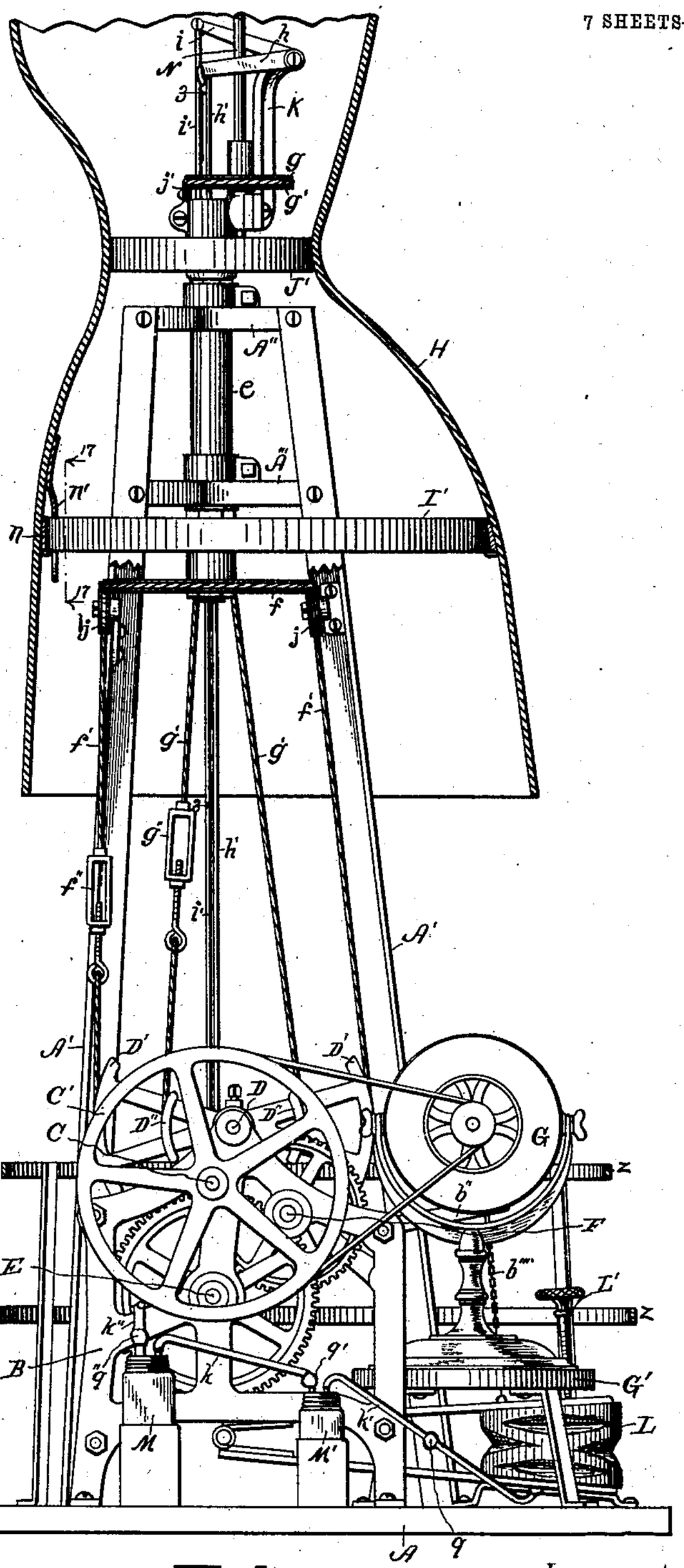


Fig. 2.

Witnesses:

D. E. Wood.

Otto A. Earl.

Inventor,

Frank G. Dorment

By Fred L. Campbell

Att'y.

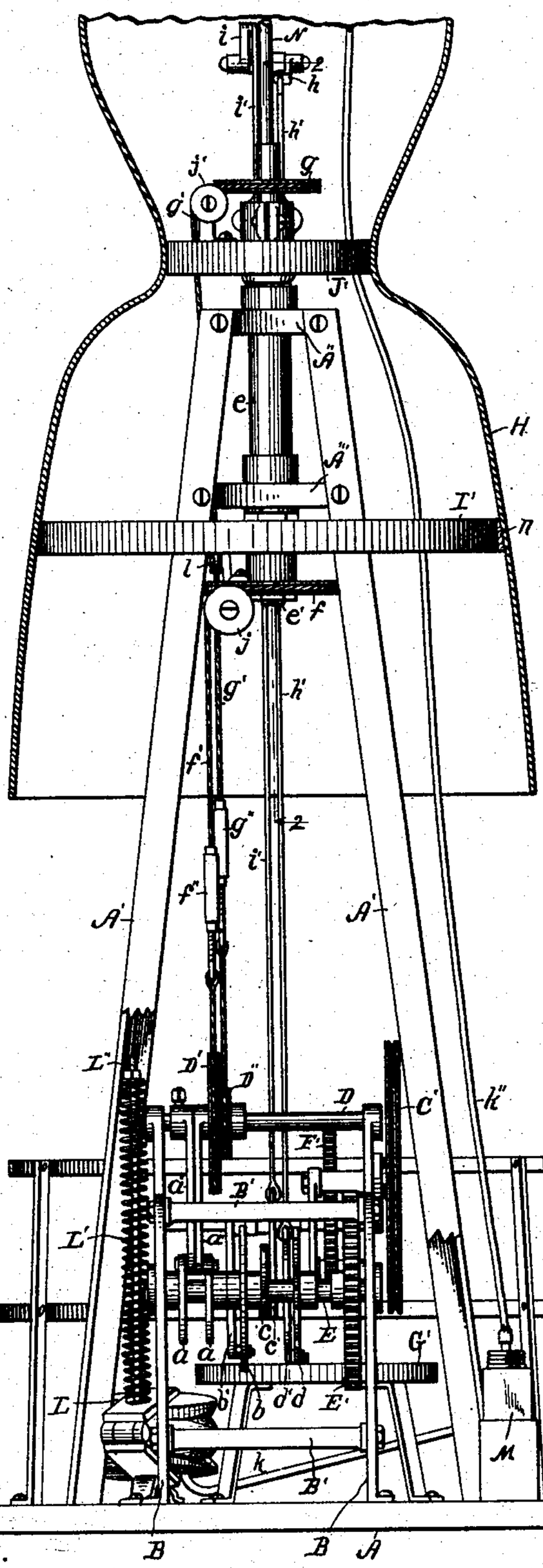
No. 721,787. PATENTED MAR. 3, 1903.

F. C. DORMENT.

ADVERTISING AUTOMATON.

APPLICATION FILED OCT. 16, 1901.

NO MODEL. 7 SHEETS—SHEET 3.



Witnesses:

D. E. Wood.

Otto A. Earl.

Inventor,

Frank C. Dorment

By Fred L. Chappell

Att'y.

No. 721,787. PATENTED MAR. 3, 1903.

F. C. DORMENT.

ADVERTISING AUTOMATON.

APPLICATION FILED OCT. 16, 1901.

NO MODEL. 7 SHEETS—SHEET 4.

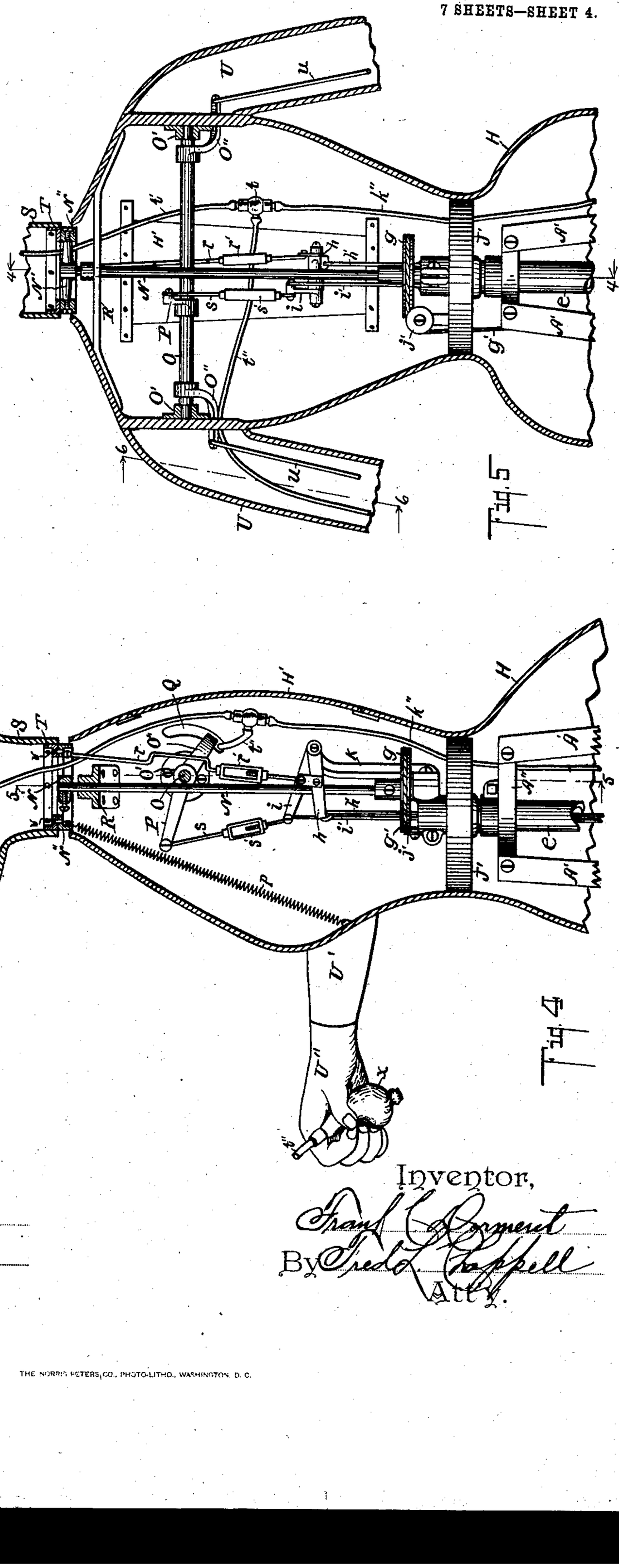


Fig. 5

Fig. 4

Witnesses:
D. E. Wood.
Otis A. Earl

Inventor,
Frank C. Dorment
By Fred'k. Coppell
Atty.

No. 721,787. PATENTED MAR. 3, 1903.

F. C. DORMENT.

ADVERTISING AUTOMATON.

APPLICATION FILED OCT. 16, 1901.

NO MODEL. 7 SHEETS—SHEET 5.

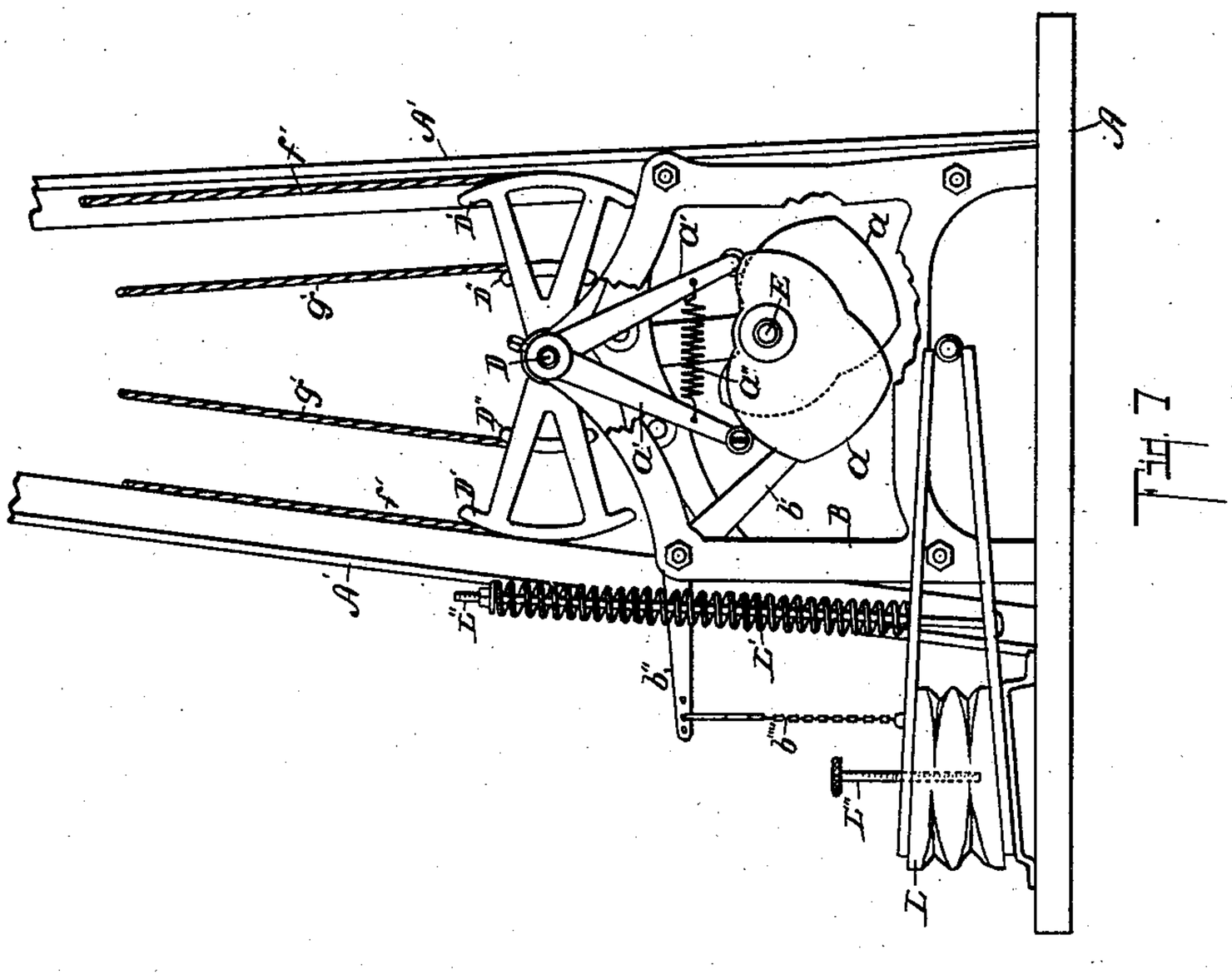


Fig. 7

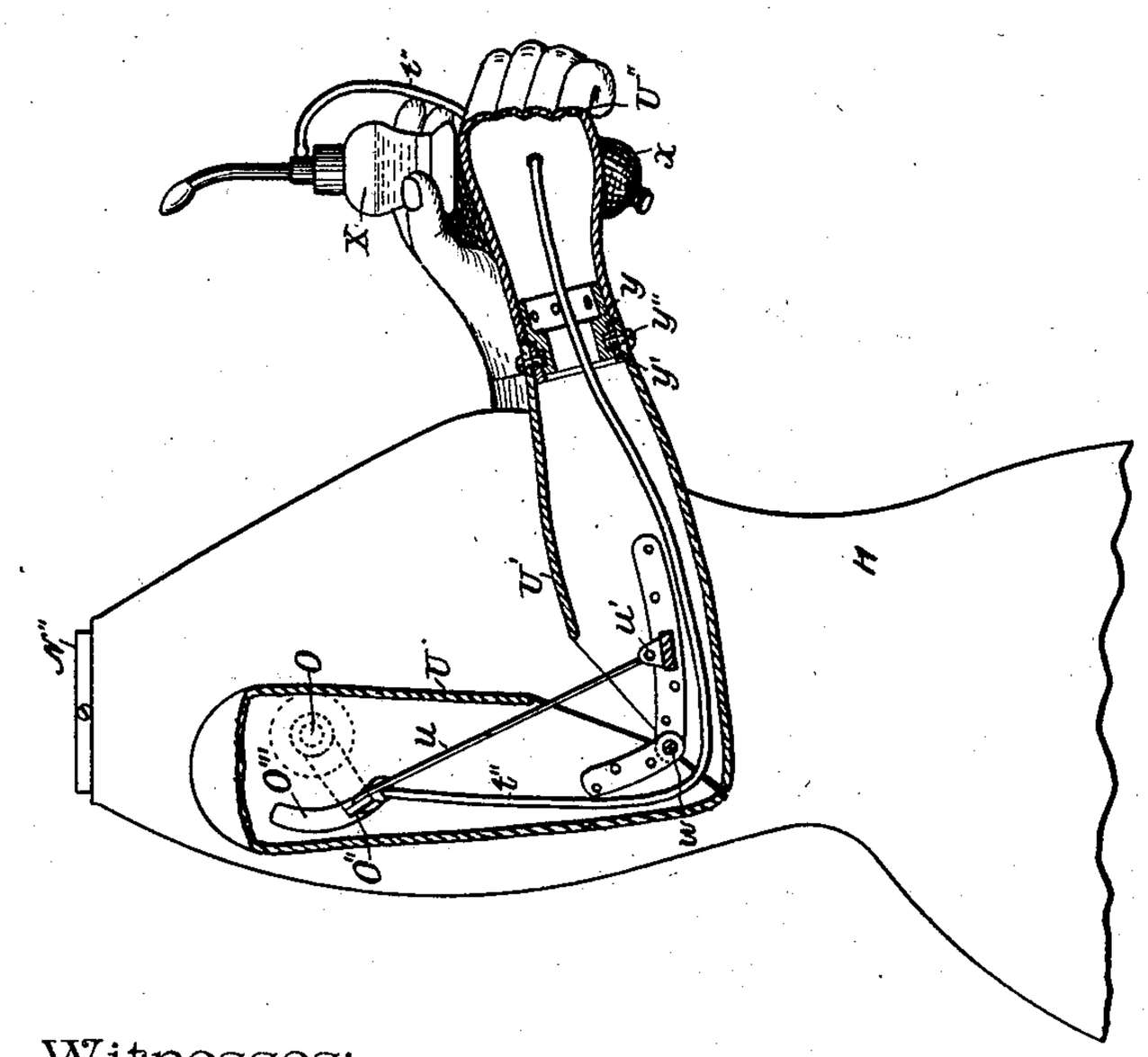


Fig. 6

Witnesses:

D. E. Wood.

Otis A. Earl.

Inventor,

Frank C. Dorment

By Fred L. Chappell

Atty.

No. 721,787. PATENTED MAR. 3, 1903.

F. C. DORMENT.

ADVERTISING AUTOMATON.

APPLICATION FILED OCT. 16, 1901.

NO MODEL.

7 SHEETS—SHEET 6.

Fig. 10

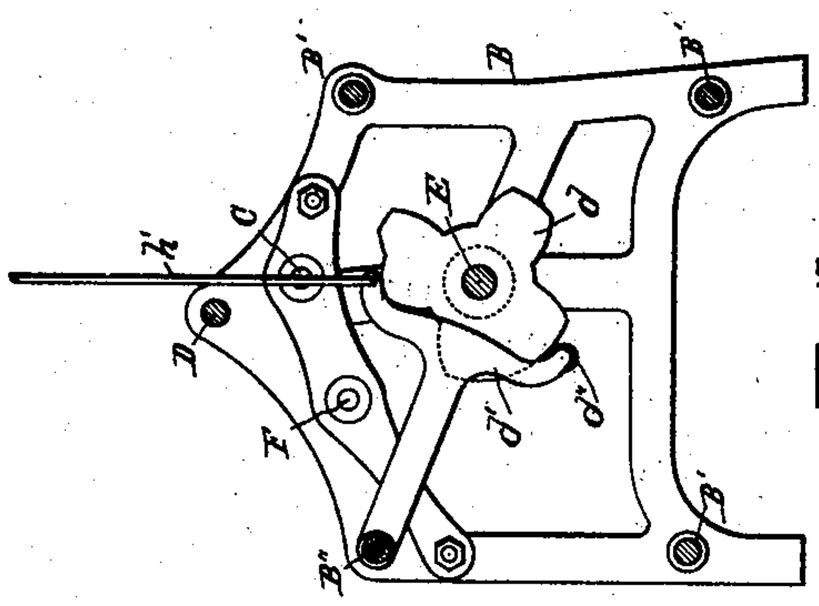


Fig. 11

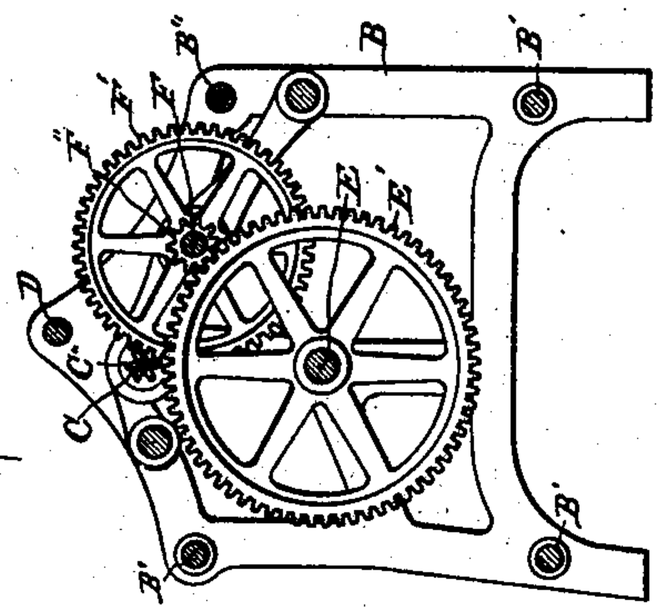


Fig. 9

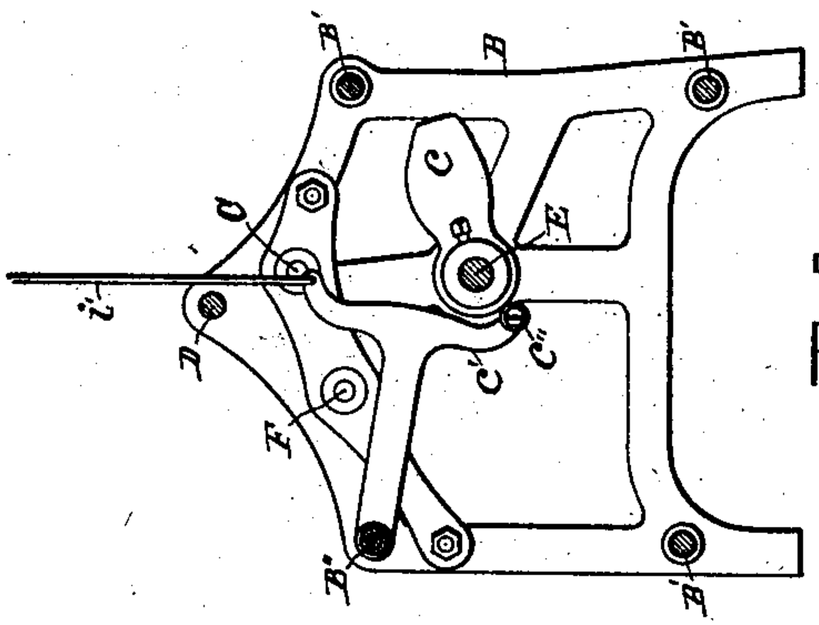


Fig. 12

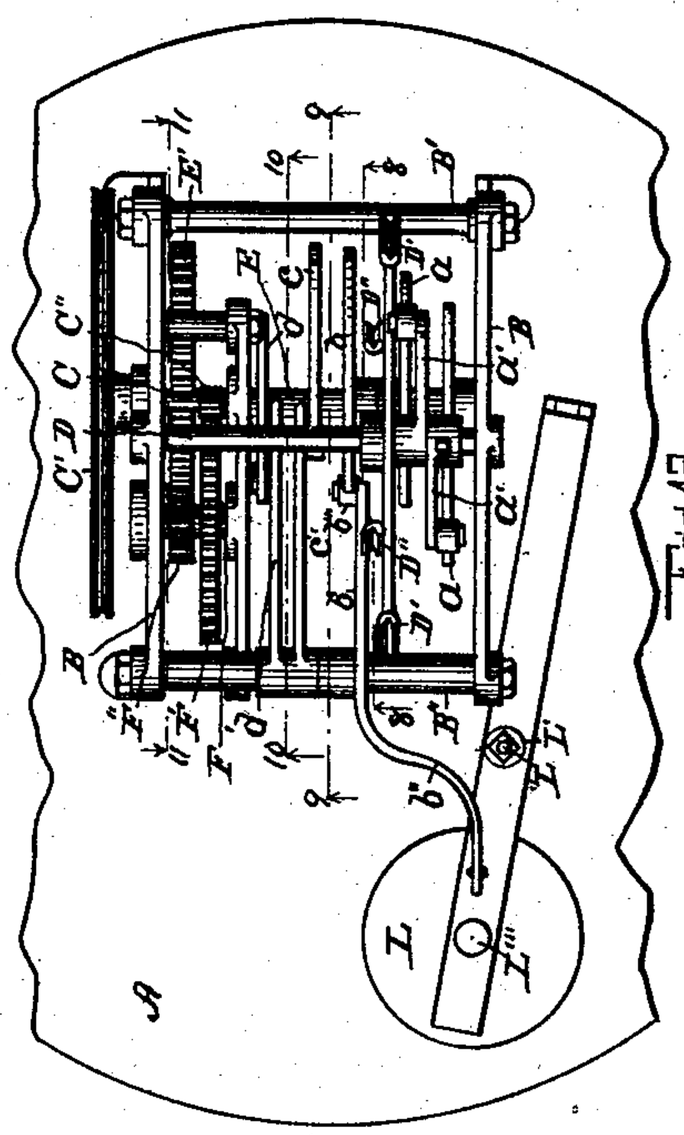


Fig. 8

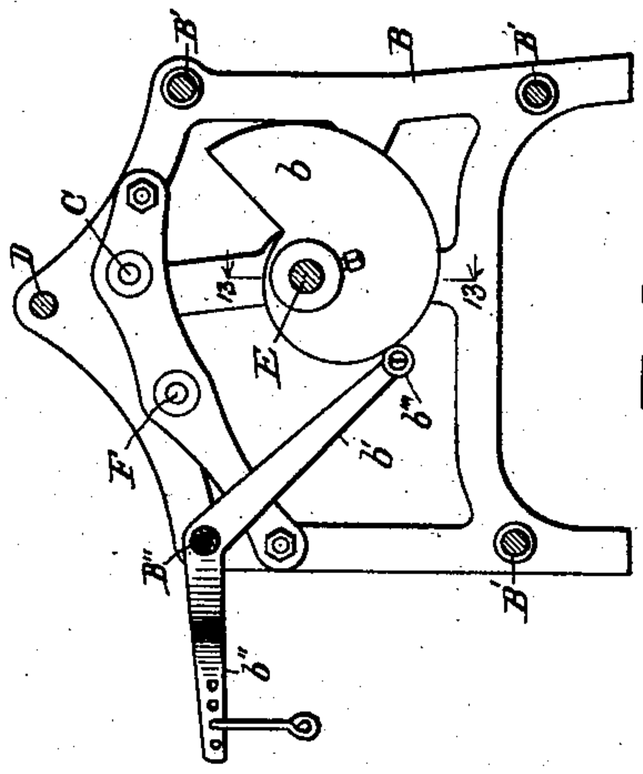
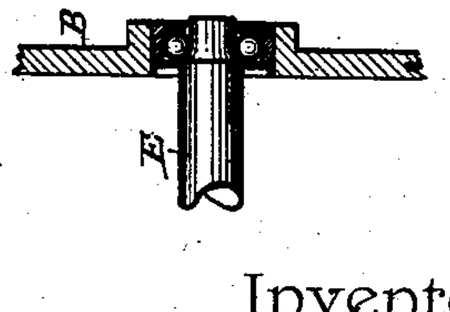


Fig. 13



Witnesses:

D. E. Wood.

Otis A. Earl

Inventor,

Frank C. Dorment

By Fred'k Caldwell

Att'y.

No. 721,787. PATENTED MAR. 3, 1903.

F. C. DORMENT.

ADVERTISING AUTOMATON.

APPLICATION FILED OCT. 16, 1901.

NO MODEL. 7 SHEETS—SHEET 7.

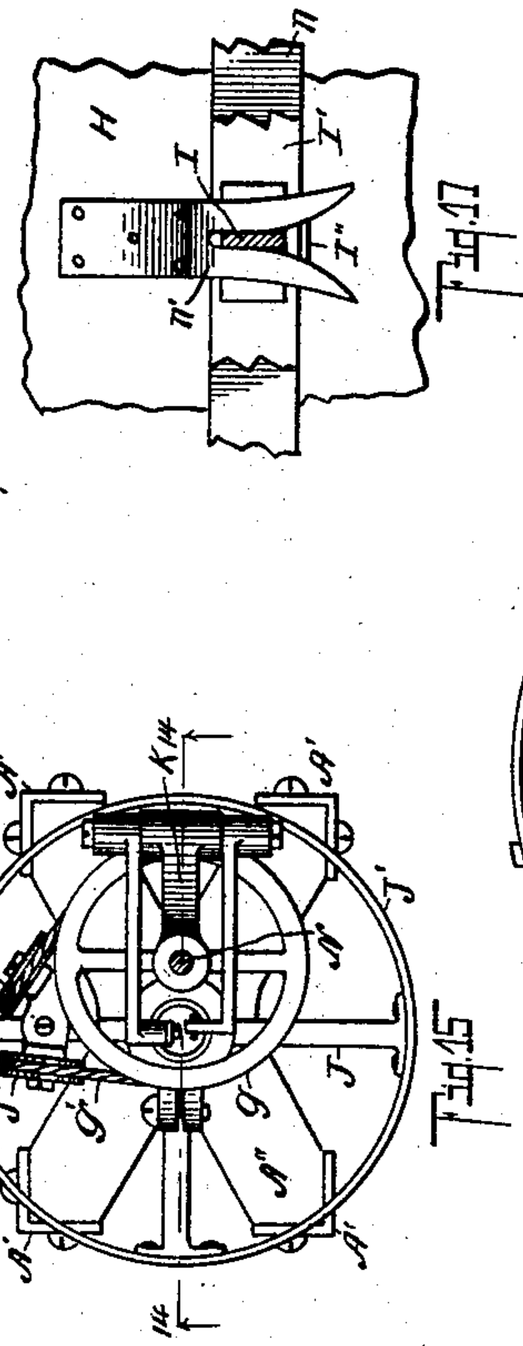


Fig. 17

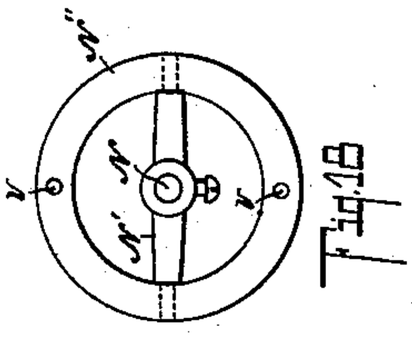


Fig. 18

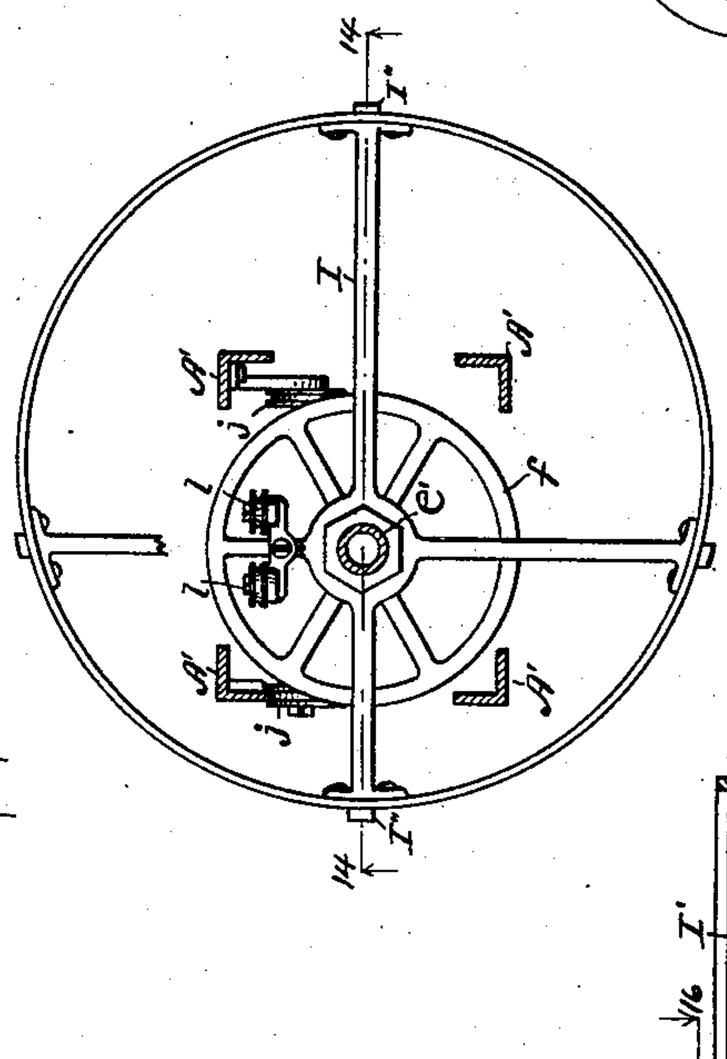


Fig. 16

Fig. 15

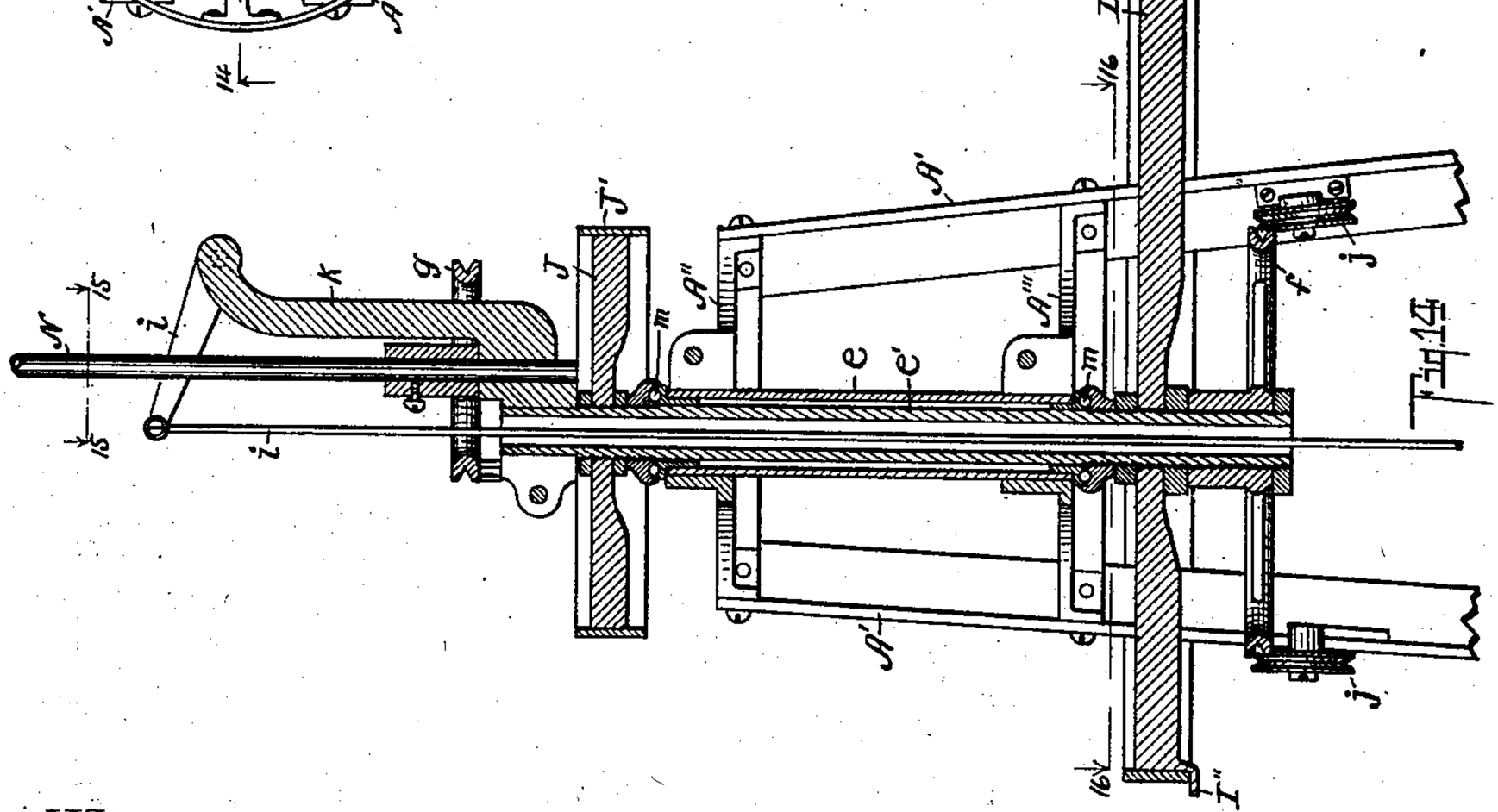


Fig. 14

Witnesses:

D. E. Wood.

Otis A. Earl

Inventor,

Frank C. Dorment

By Fred L. Campbell

Att'y.

UNITED STATES PATENT OFFICE.

FRANK C. DORMENT, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO NATIONAL VAPORIZER COMPANY, OF KALAMAZOO, MICHIGAN.

ADVERTISING-AUTOMATON.

SPECIFICATION forming part of Letters Patent No. 721,787, dated March 3, 1903.

Application filed October 16, 1901. Serial No. 78,803. (No model.)

To all whom it may concern:

Be it known that I, FRANK C. DORMENT, a citizen of the United States, residing at the city of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Advertising-Automatons, of which the following is a specification.

This invention relates to an improved automaton for advertising purposes.

The invention is here shown especially adapted to advertising atomizers, though it is obvious that the same could by very slight adaptation be made use of in advertising cigars or pipes or for other purposes.

The objects of the invention are, first, to provide in connection with the automaton an improved apparatus for causing the appearance of vapor or smoke in that connection; second, to provide an improved apparatus for controlling the movements of the automaton, such as the swinging and bowing of the body and head and the movement of the arms; third, to provide an improved apparatus for coacting with the driving mechanism for causing the movements of the body so timed and arranged that there will be a discharge of the vapor or smoke at the proper intervals of the movement.

Further objects relating to the details of the mechanism will fully and distinctly appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in this specification.

The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of the automaton as it appears in operation. Fig. 2 is a side elevation of the mechanism, the shell of the figure of the automaton being shown in section on a line corresponding to line 2 2 of Fig. 3, whereby the relative position of the parts appear, portions of the framework being broken away. Fig. 3 is a front detail elevation of the mechanism, the shell of the figure being in section on a line corresponding to line 3 3 of Fig. 2 and portions of the frame being broken away, illustrating the passages for the vapor in proper relation to the other parts of the mechanism. Fig. 4 is a detail elevation view of the upper part of the mechanism, the body and the head of the figure being in section on a line corresponding to line 4 4 of Fig. 5 from the front to the rear. Fig. 5 is a front elevation of the same part of the mechanism, the shell of the figure being in section on the line corresponding to line 5 5 of Fig. 4, showing how it is supported on the framework. Fig. 6 is a side elevation view of the figure, the arm portion being in section on the line corresponding to line 6 6 of Fig. 5, so that the details of the mechanism therein appear. Fig. 7 is an enlarged detail side elevation of the cams and a part of the bellows mechanism, taken from the left hand of Fig. 3 and the bottom side of Fig. 12, the protecting-rails *z z* being removed and portions of the framework being broken away to show details. Fig. 8 is an enlarged detail sectional view taken on line 8 8 of Fig. 12. Fig. 9 is a detail section view taken on line 9 9 of Fig. 12. Fig. 10 is a detail sectional view taken on line 10 10 of Fig. 12. Fig. 11 is a detail sectional view taken on line 11 11 of Fig. 12. Fig. 12 is a plan view of the driving mechanism in the lower part of the figure as appears in Figs. 2, 3, and 7, the framework and the connecting bolts or bands being all omitted. Fig. 13 is a detail sectional view of the bearings at the end of the shaft E, taken on a line corresponding to line 13 13 of Fig. 8. Fig. 14 is an enlarged detail vertical sectional view through the upper portion of the figure, taken on a line corresponding to lines 14 14 of Figs. 3, 15, and 16. Fig. 15 is a detail horizontal sectional view of the structure appearing in Fig. 14 on line corresponding to line 15 15 thereof. Fig. 16 is a detail horizontal sectional view on line 16 16 of Fig. 15. Fig. 17 is an enlarged detail sectional view on a line corresponding to line 17 17 of Fig. 2, showing the means of locating the shell of the automaton on the framework of the driving mechanism. Fig. 18 is a detail view of the turn-table N″, which supports and carries the head of the figure.

In the drawings similar letters of reference

refer to similar parts throughout the several views, and all of the sectional views are taken looking in the direction of the little arrows at the ends of the section-lines.

Referring to the lettered parts of the drawings, A is the base, which carries the framework of the driving mechanism, which in its turn supports the shell of the figure of the automaton, the main framework consisting of corner-posts of angle steel or iron A′ A′, with top plates or frames A″ and cross plates or frame A‴. Supported by the plates A″ A‴ is a vertical sleeve or column *e*. Extending through this is a vertical shaft *e′*, which has bearings above and below the said hollow column *e*, such bearings appearing as balls *m m*. On this shaft, which is hollow, is supported a projecting frame J, with a band J′ around it which comes at the waist-line of the figure. Secured toward the lower part of this shaft *e′* is a frame I, with a band I′ around it, the same being secured thereto by bolts or nuts I″. (See Fig. 16.) This frame supports the lower part of the shell of the automaton at what would correspond to about the hip-line, and the same is located in a fixed relative position thereto by the notched tooth *n′*, which is secured to the inside of the shell H, embracing one of the arms I of the frame. To the lower end of this shaft *e′* is secured a pulley or wheel *f*, and the same is actuated and drawn from side to side by the mechanism which will be hereinafter described. This serves to turn or swing the entire figure of the automaton from side to side.

Supported on the frame J is a vertical shaft N, which extends upwardly and serves to rotate or swing the head from side to side independent of the body, the shaft having a bearing on the bracket R in the upper part of the shell H′ and being actuated by a pulley *g* on its lower end, the pulley having but a straight bar across it to permit the arm K to extend up through it.

On the upper end of the shaft N is the transverse arm N′, which is either adjustably or permanently secured to the said shaft. On the ends of this arm are journals, which support the ring N″, which receives the foundation-plate T, which carries the head, the same being so located as to permit the head to bow when it is actuated by the mechanism hereinafter to be described. The connecting-rod *r* is coupled to the back side of the ring N″ and extends downwardly and is connected to the lever *h*, whereby the head is given a bowing movement by the driving mechanism below, the connection of which will be hereinafter described. The head is retained in position by suitable dowels on the frame T, which enter into suitable perforations in the ring N″. (See *v v* in Fig. 18.) The head is held taut, so that there is no jarring motion, by means of the coiled spring *p*, coupled to the front of the ring N″ and extending down to and coupling to the inside of the shell H′ of the figure. A tube *t′* extends from the connections with the vaporizing apparatus below up through the neck and into the nasal passages, or one of them, the main tube from the vaporizer being indicated by the reference-letter *k″*.

Arms U are provided on each side of the figure, which are hollow, and this portion of the arm is rigidly connected to the shell of the body. The forearm U′, with the hand, is provided with suitable brackets, which are pivoted to other brackets on the arm U, whereby the forearm is allowed to raise and lower on the pivot *w*. The hand is made conveniently detachable by a sleeve-coupling *y y′*, retained in position by set-screws *y″*. The hand U″ is hollow and is shaped to grasp either the bulb *x* or the body X of the atomizer. A transverse rock-shaft O through the upper part of the figure is supported in suitable bearings O′ O′ on the shell of the figure. These are provided with arms O″, which are connected by links *u* to the brackets *u′* in the forearm, whereby when the rock-shaft is actuated the arms themselves will be actuated. The rock-shaft O is actuated by means of the arm P and an adjustable connection *s s′*, which extends downwardly therefrom and is connected to a lever *i*, by which means it is actuated. The levers *i h* are supported on suitable journals carried by a bracket K, which is secured to the top of the shaft *e′*, the long ends of the lever projecting directly over the center of the said shaft *e′*, as distinctly appears in Figs. 14 and 15, so that connections *i′ h′* extend down through the shaft to a suitable lever on the mechanism below for their proper actuation. Such mechanism for their operation will be hereinafter described. A tube *t″* from the vaporizer or smoke device extends out through the arm and through the hand, as clearly appears in Fig. 6, to the atomizer X, whereby a current of vapor or smoke can be delivered through the representation of the atomizer, which will give it the effect of active operation, as distinctly appears in Fig. 1, where there is also illustrated an escape of vapor from one of the nostrils.

I have now described the connection and means within the figure, and I will now definitely point out their connections to the driving mechanism below. The driving mechanism is preferably actuated by a small electric-fan motor, as G; but of course the same can be driven by a clockwork mechanism or any other suitable motor. This motor is supported on an independent base G′, carried by suitable legs on the main base A. Supported on the base A is a framework consisting of side pieces B B, joined together by suitable coupling-rods B′ B′, as clearly appears in all of the figures of the drawings which relate to this driving mechanism. The main driving-shaft C is supported in suitable bearings in the upper part of the frames B B and carries

the wheel C′, which is driven from the electric motor or other driving means that may be provided.

E is the shaft carrying the cams which actuate the various parts of the machine and secure proper timing of their movements.

On the inner end of the driving-shaft C is a pinion C″, which meshes with a gear F′ on the shaft F, and a pinion F″ is also on the same shaft, which engages with the gear-wheel E′, which actuates the shaft E, all clearly appearing in Fig. 11. Supported on the shaft E are a pair of irregular cams *a*, which are substantially opposites. On the upper part of the side frames B is a shaft D, which carries a pair of walking-beams D′ D′ and D″ D″, the beams D′ being the longer pair. These are connected by cords or belts *f′ f′* to the opposite sides of the horizontal pulley *f*, secured to the lower end of the shaft *e′*, the same being guided into position over suitable guide-pulleys *j j*, secured to the posts A′ A′ at each side. Arms *a′ a′*, one of which is rigidly connected to the walking-beams and the other of which is pivoted freely on the shaft, extend downward to the cams *a a*, which serve to rock these walking-beams D from side to side when the cams are rotated by the shaft E. These arms *a′ a′* are held normally toward each other by a coiled spring *a″*, which holds the antifriction-rollers at the lower ends of the arms in close operative contact with the cams. Therefore the rotation of the shaft E through this connection causes the entire figure to turn by turning the shaft *e′*, which serves as a support for the entire figure. The walking-beams D″ D″ are secured to the same hub as the walking-beams D′ D′, and connections, as cords or belts *g′ g′*, extend upwardly therefrom through the broad spaces in the driving-pulley up through the figure over guide-pulleys *j″ j″* and around the horizontal pulley *g*, which is on the shaft N for swinging the head from side to side, and the same is operated, consequently, from this independent connection and given an independent movement from the movements of the body, so that the entire figure swings and the head swings from side to side independent of the figure. Next to the cams *a a* on the shaft is a cam *b*, which is of irregular form, one side having an abrupt radial line for permitting a free movement of a lever toward the center. This appears distinctly in Fig. 8. The lever *b′ b″*, with antifriction-roller *b‴*, is acted upon by this cam, the said lever being connected to operate the bellows which will be hereinafter described. The action of the cam is to gradually open the bellows until the lever is actuated to the fullest extent, when it is released and a spring forces the sides of the bellows together, all of which will be more fully described hereinafter. Next the cam *b* on the shaft E is an irregular cam *c*, which acts against an antifriction-roller *c′* on the lever *c′*, which is pivoted on one of the tie-rods B″ to one side of the frame B. The lever acted upon by this cam *c* is connected to the lower end of the cord or connection *i″*, which acts upon the lever *i*, which is connected, as before stated, through a connection to an arm P and serves, through the connection to the shaft O, to raise the arms of the figure and carry the atomizer to and from the face. A fourth cam *d* is next to the cam *c*, this cam being very irregular, as clearly appears in Fig. 10, and it acts upon a lever *d′*, having an antifriction-roller *d″*, which lever is very similar in form to the lever *c′* appearing in Fig. 9. This lever *d′* is connected to the rod or cord *h′*, which connects, as before stated, to the lever *h*, which lever is connected to the rocking ring N″, which supports the head. The head is caused to bow several times during the other movements of the figure, giving to the figure a very life-like and animated appearance. These cams are all arranged in proper relation to each other to secure the desired operation of the various parts. Their actual timing might be somewhat changed, and I do not wish to be restricted in my patent to any particular arrangement. The connections *i′ h′*, passing up centrally through the center shaft *e′*, are of course in operative position no matter what position is assumed by the figure in swinging from side to side in relation thereto.

To secure the proper effect of the vaporizer and make a very conspicuous vapor or smoke, I have devised a special means, which consists of the bellows L, connected to wash-bottles M′ M (or bottles arranged exactly similar, the purpose in this instance being to impregnate the air or gas rather than eliminate anything from it) successively. A tube *k″* passes up through the interior of the figure, as indicated in Figs. 3, 4, 5, and 6, the tube *k″* passing upwardly to a coupling *t* and there branching to a pipe *t′*, which passes up through the neck and out to the face and connects to one of the nostrils, and the other branch *t″* passing out through the right arm of the figure through the hand and connecting with the atomizer. In the first wash-bottle M′, I place a solution of hydrochloric acid and in the second wash-bottle M a solution of caustic ammonia. In the pipe *k′*, leading from the bellows, I place a check-valve *q*. Beyond the bottle M′, I place a second check-valve *q′*, and beyond the bottle M, I place another check-valve *q″*, so that there will be no back-passage of air or vapor through the bottles. When air is forced through these bottles, the vapor from the hydrochloric acid passing over to the bottle of caustic ammonia causes the formation of a dense white vapor of chlorid of ammonia, which is passed up and out through the tube *k″*, out through the vaporizer X, and out of the nostrils of the figure. The lever *b′ b″* is pivoted on the shaft B″ and is connected at its outer end by a suitable link and chain *b⁗* to the upper half of the bellows L, and of course when the lever

is actuated from the cam *b* it raises the same gradually upward. This acts against a coiled spring L′ on a rod L″, which presses against the top of the bellows, so that when the lever is released by the cam the spring closes the bellows and forces a current of air out through the apparatus described, generating a vapor from the gas and discharging it out through the atomizer and the nostrils of the figure, as described.

The figure, of course, is intended to be provided with a gown which will hang down over the operating mechanism and entirely conceal it. Suitable apertures are provided in the back of the shell of the figure, which can be opened to permit access for the adjustment and arrangement of the machinery, and the back of the head is cut off and retained as a lid. It is retained in position by an elastic cord *s*″, passing to the interior of the head and fastened to the back of the face.

I have shown both the head and both the arms moving at the same time; but it is of course obvious that only one arm would need to be operated to secure the satisfactory results, and, in fact, in a device for advertising smokers' goods of course only one arm should be moved.

I desire to remark that the particular preparation I have made use of to induce the vapor or smoke is most effective in a device of this kind, because the vapor does not corrode or leave any stain and there is no condensation from it, all of which are particularly desirable for use in a figure of this kind. I also desire to remark that the particular apparatus, bellows, &c., might be made use of for delivering smoke from burning materials, though this would not be at all satisfactory, because of the deposit of creosote from the same, and, in fact, I have determined upon the materials which I am now using after months of experimentation which did not result in anything satisfactory.

I have described the entire structure of this automaton in detail and believe that I have the same constructed in the form best adapted for the particular uses intended. I, however, desire to remark that the details of this structure can be greatly varied without departing from my invention. In place of the cam connections other independent connections might be employed, as would be readily understood by any one skilled in such mechanisms. I have shown the entire figure adapted to swing from side to side and the head adapted to independent movements from that of the body both in a swinging and bowing direction and have shown the arms all moving independently. Of course the figure would be very effective if only a part of these movements were present. It is of course desirable to have them all present, and I desire not to be confined in my claims to the movements of the figure in all details, but desire to claim the structure generally as well as specifically.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an automaton, the combination of the base A; the main frame made up of corner-posts A′, A′, with a top plate and middle plate A″ and A‴; a vertical sleeve *e* supported by said plates; a vertical shaft *e*′ carried by bearings at the top and bottom of said sleeve; a band J′ at the waist-line secured to the upper part of said shaft; and a projecting flange I secured to the lower part of said shaft by suitable projecting arms; the shell of the figure supported by said bands or flanges; the transverse wheel *f* on the lower part of said shaft *e*′ with suitable guide-pulleys in alinement therewith; a bracket K on the upper end of shaft *e*′, a vertical shaft N supported by a bracket K on shaft *e*′ and to one side thereof carrying a cross-arm N′ on which is supported a suitable ring N″; a band T with suitable dowels to rest on the ring N″ with a hollow head resting thereon; a wheel *g* on the lower end of the said shaft N; levers *i*, *h*, secured to bracket K and projecting to a point directly above the hollow shaft *e*′; transverse rock-shaft O in bearings O′ in the upper part of said figure with suitable projecting arms O″; hollow arms on the figure with hollow forearms pivoted thereto bearing detachable hollow hands; links *u* connecting the arms O″ to brackets *u*′ in the forearm; an arm P on the rock-shaft O having connections to the lever *i*; a connection from the ring N″ to the lever *h* for rocking the head; and connections from the various parts downwardly for actuating the same; a suitable frame with driving mechanism supported thereon; a suitable motor for actuating the same; a shaft with cams; levers resting against said cams and coupled to the various connections; a bellows; a smoke or vapor generating device connected to said bellows; a cam with a lever for actuating said bellows; a pipe leading from the smoke or vapor apparatus upwardly and branching, one branch passing through the hollow head to the nostril, and the other passing through the hollow body and arm to an atomizing instrument in the hand, all coacting substantially as described, for the purpose specified.

2. In an automaton, the combination of the base A; the main frame thereon; a vertical sleeve *e* supported by said frame; a vertical shaft *e*′ carried by bearings in said sleeve; the shell of the figure supported by said shaft *e*′; the transverse wheel *f* on the lower part of said shaft *e*′ with suitable guide-pulleys in alinement therewith; a bracket K on the upper end of shaft *e*′; a vertical shaft N supported by a bracket K on shaft *e*′ and to one side thereof carrying a cross-arm N′ on which is supported a suitable ring N″; a band T with suitable dowels to rest on the ring N″ with a hollow head resting thereon; a wheel *g* on the lower end of the said shaft N; levers *i*, *h* secured to bracket K and projecting to a point directly above the hollow shaft *e*′; transverse

rock-shaft O in bearings O′ in the upper part of said figure with suitable projecting arms O″; hollow arms on the figure with hollow forearms pivoted thereto; links *u* connecting the arms O″ to brackets *u′* in the forearm; an arm P on the rock-shaft O having connections to the lever *i;* a connection from the ring N″ to the lever *h* for rocking the head; and connections from the various parts downwardly for actuating the same; a suitable frame with driving mechanism supported thereon; a suitable motor for actuating the same; a shaft with cams; levers resting against said cams and coupled to the various connections; a bellows; a smoke or vapor generating device connected to said bellows; a cam with a lever for actuating said bellows; a pipe leading from the smoke or vapor apparatus upwardly and branching, one branch passing through the hollow head to the nostril, and the other passing through the hollow body and arm to an atomizing instrument in the hand, all coacting substantially as described for the purpose specified.

3. In an automaton, the combination of the base A; the main frame thereon; a vertical sleeve *e* supported by said frame; a vertical shaft *e′* carried by bearings in said sleeve; the shell of the figure supported by said shaft *e′;* the transverse wheel *f* on the lower part of said shaft *e′* with suitable guide-pulleys in alinement therewith; a bracket K on the upper end of shaft *e′;* a vertical shaft N supported by a bracket K on shaft *e′* and to one side thereof carrying a cross-arm N′ on which is supported a suitable ring N″; a band T with suitable dowels to rest on the ring N″ with a hollow head resting thereon; a wheel *g* on the lower end of the said shaft N; levers *i*, *h*, secured to bracket K and projecting to a point directly above the hollow shaft *e′;* transverse rock-shaft O in bearings O′ in the upper part of said figure with suitable projecting arms O″; hollow arms on the figure with hollow forearms pivoted thereto; links *u* connecting the arms O″ to brackets *u′* in the forearm; an arm P on the rock-shaft O having connections to the lever *i;* a connection from the ring N″ to the lever *h* for rocking the head; and connections from the various parts downwardly for actuating the same; a suitable frame with driving mechanism supported thereon; a suitable motor for actuating the same; a shaft with cams; levers resting against said cams and coupled to the various connections, all coacting substantially as described for the purpose specified.

4. In an automaton, the combination of the body of the figure with a shell-like casing supported on a suitable vertical shaft so that it can swing from side to side; the head supported on a vertical shaft carried within the body of the figure so that it can swing independent of the figure from side to side, the same being supported on a suitable rocking frame so that it can be caused to bow; hollow arms on said figure, the forearms of which are pivoted thereto; a suitable mechanism connected to actuate the different parts; a vaporizing device with a suitable bellows for delivering air therethrough, the same consisting of a pair of wash-bottles, connected by a suitable tube to the said bellows, the first of the wash-bottles containing a solution of hydrochloric acid, and the second, a solution of caustic ammonia; check-valves between the bellows and the first bottle, and between the first bottle and the second bottle; a tube containing a check-valve leading from the second bottle upwardly, branching, one branch leading up through the hollow body and the head to the nostril, and the other branch leading through the hollow body and the arm to an atomizer; suitable mechanism for actuating the various parts, all coacting for the purpose specified.

5. In an automaton, the combination of the body of the figure with a shell-like casing supported on a suitable vertical shaft so that it can swing from side to side; the head supported on a vertical shaft carried within the body of the figure so that it can swing independent of the figure from side to side; hollow arms on said figure, the forearms of which are pivoted thereto; a suitable mechanism connected to actuate the different parts; a vaporizing device with a suitable bellows for delivering air therethrough, the same consisting of a pair of wash-bottles, connected by a suitable tube to said bellows, the first of the wash-bottles containing a solution of hydrochloric acid, and the second a solution of caustic ammonia; check-valves between the bellows and the first bottle and between the first bottle and the second bottle; a tube containing a check-valve leading from the second bottle upwardly, branching, one branch leading up through the hollow body and the head to the nostril, and the other branch leading through the hollow body and the arm to an atomizer; suitable mechanism for actuating the various parts, all coacting for the purpose specified.

6. In an automaton, the combination of the body of the figure with a shell-like casing supported on a suitable vertical shaft so that it can swing from side to side; hollow arms on said figure, the forearms of which are pivoted thereto; a suitable mechanism connected to actuate the different parts; a vaporizing device with a suitable bellows for delivering air therethrough, the same consisting of a pair of wash-bottles connected by a suitable tube to said bellows, the first of the wash-bottles containing a solution of hydrochloric acid, and the second a solution of caustic ammonia; check-valves between the bellows and the first bottle and between the first bottle and the second bottle; a tube containing a check-valve leading from the second bottle upwardly, branching, one branch leading up through the hollow body and the head to the nostril and the other branch leading through the hollow body and the arm to an atomizer;

suitable mechanism for actuating the various parts, all coacting for the purpose specified.

7. In an automaton, the combination of the body of the figure with a shell-like casing, supported on a suitable vertical shaft so that it can swing from side to side; hollow arms on said figure the forearms of which are pivoted thereto; a suitable mechanism connected to actuate the different parts; a vaporizing device with a suitable bellows for delivering air therethrough; a tube leading upwardly, branching, one branch leading up through the hollow body and head to the nostril, and the other branch leading through the hollow body and the arm to an atomizer; suitable mechanism for actuating the various parts, all coacting for the purpose specified.

8. In an automaton, the combination of a suitable base; the body of the figure supported on a suitable vertical shaft; the head supported on a vertical shaft so that it can swing independent of the body; a transverse pivot on which the head can operate to secure the bowing effect; arms pivoted to the figure; a driving mechanism supported on the base with connections therefrom to actuate the different parts of the figure, independently as specified.

9. In an automaton, the combination of a suitable base; the body of the figure supported on a suitable vertical shaft; the head supported on a vertical shaft so that it can swing independent of the body; a transverse pivot on which the head can operate to secure the bowing effect; arms pivoted to the figure; a driving mechanism supported on the base with lever connections to the different movable parts extending over the central hollow shaft which carries the figure and connections down through the shaft to the motor mechanism beneath, for actuating the various parts, as specified.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

FRANK C. DORMENT. [L. S.]

Witnesses:
ALICE E. HOUGHTON,
S. ALICE EARL.