

F. GROVER.
WRAPPING MACHINE.
APPLICATION FILED JULY 24, 1909.

973,863.

Patented Oct. 25, 1910.
6 SHEETS—SHEET 1.

Fig. 1

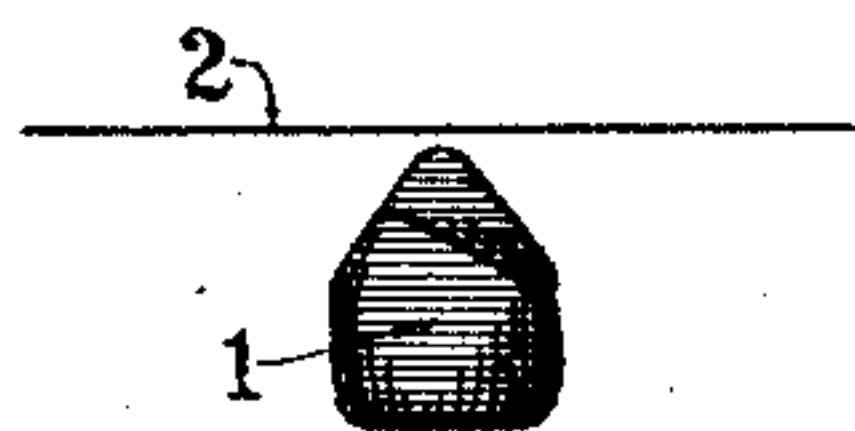


Fig. 2



Fig. 3



Fig. 4



Witnesses
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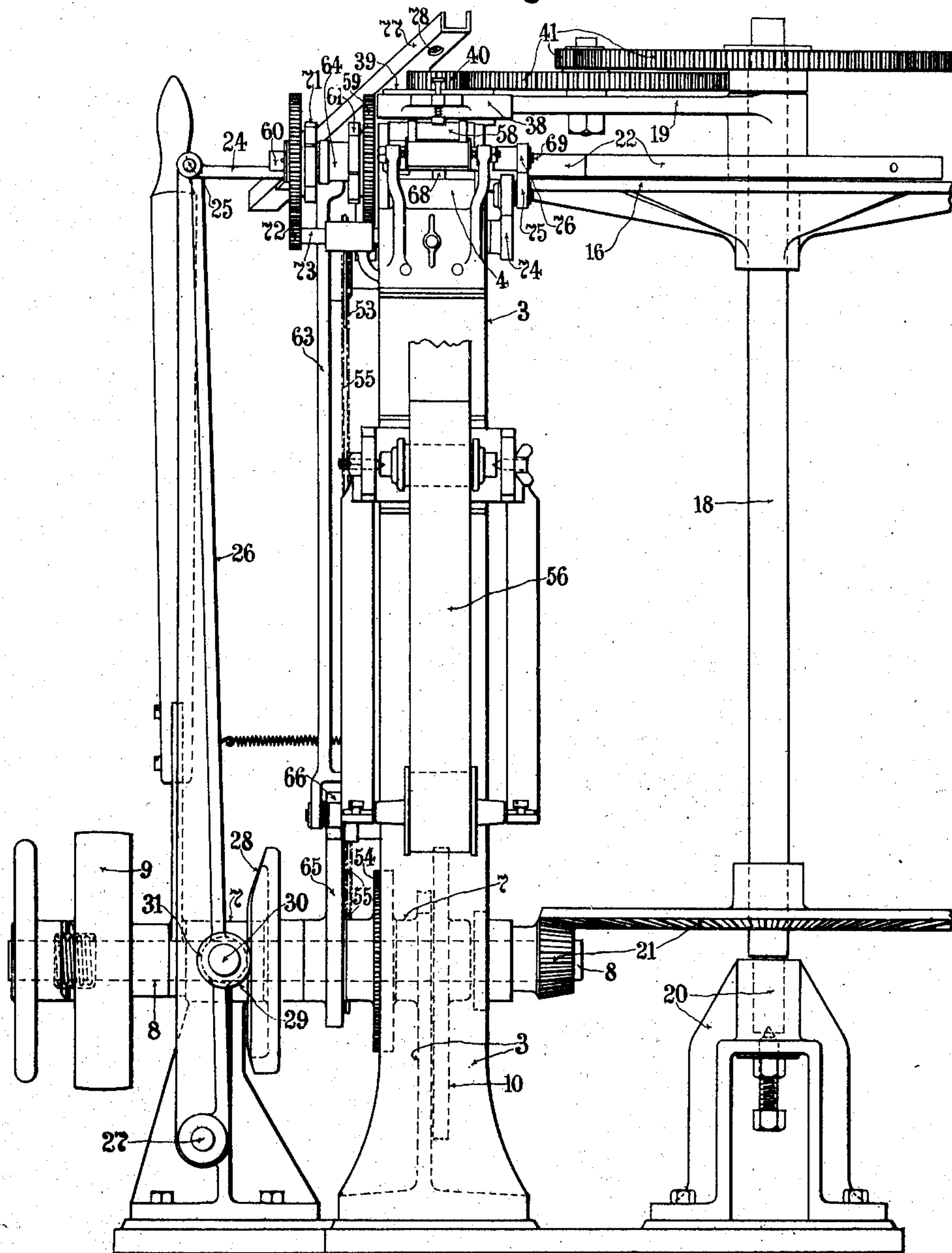
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6 SHEETS—SHEET 2.

Fig. 5



Witnesses
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Adelbert

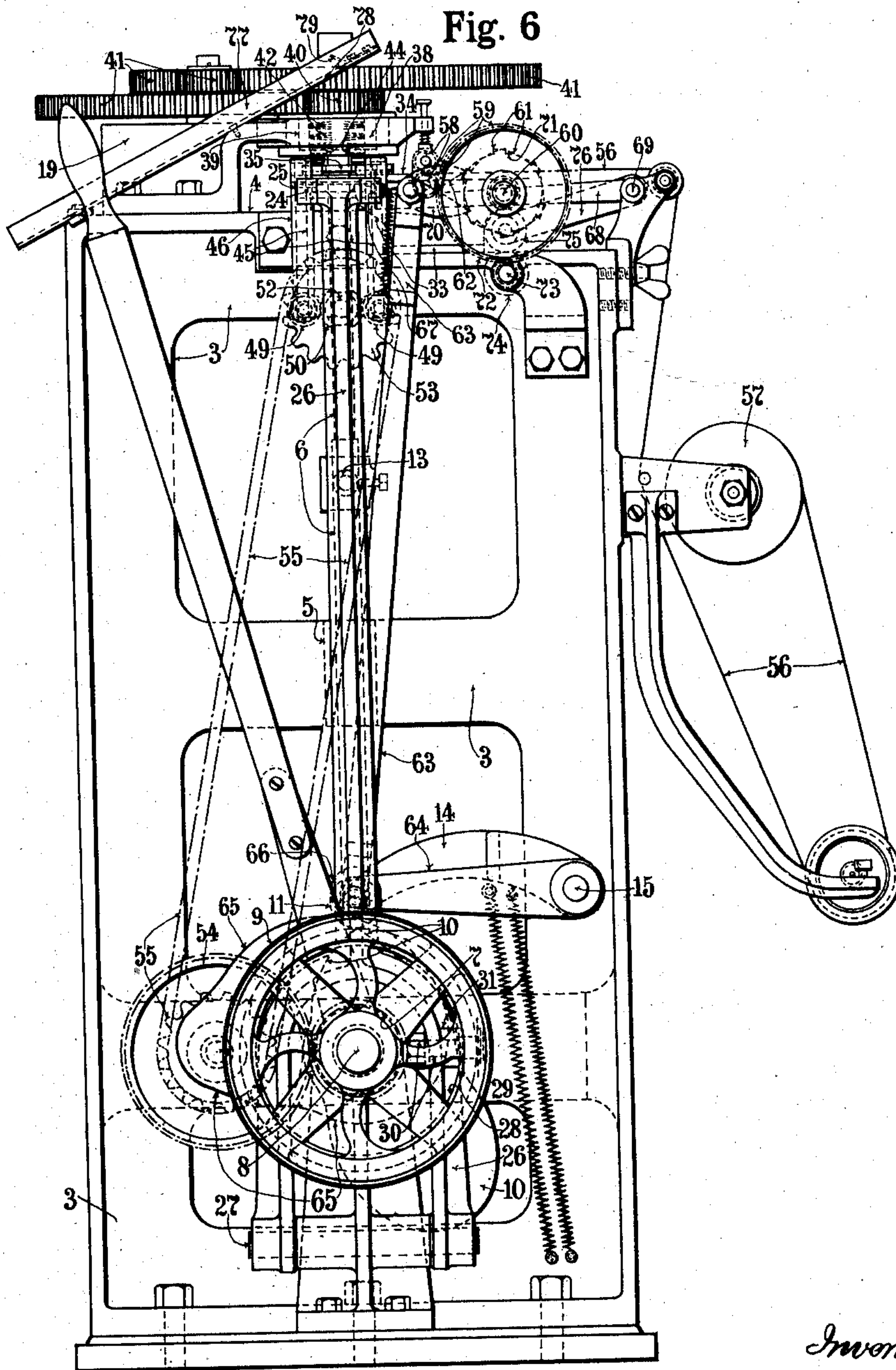
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6 SHEETS—SHEET 3.



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6 SHEETS—SHEET 4.

Fig. 7

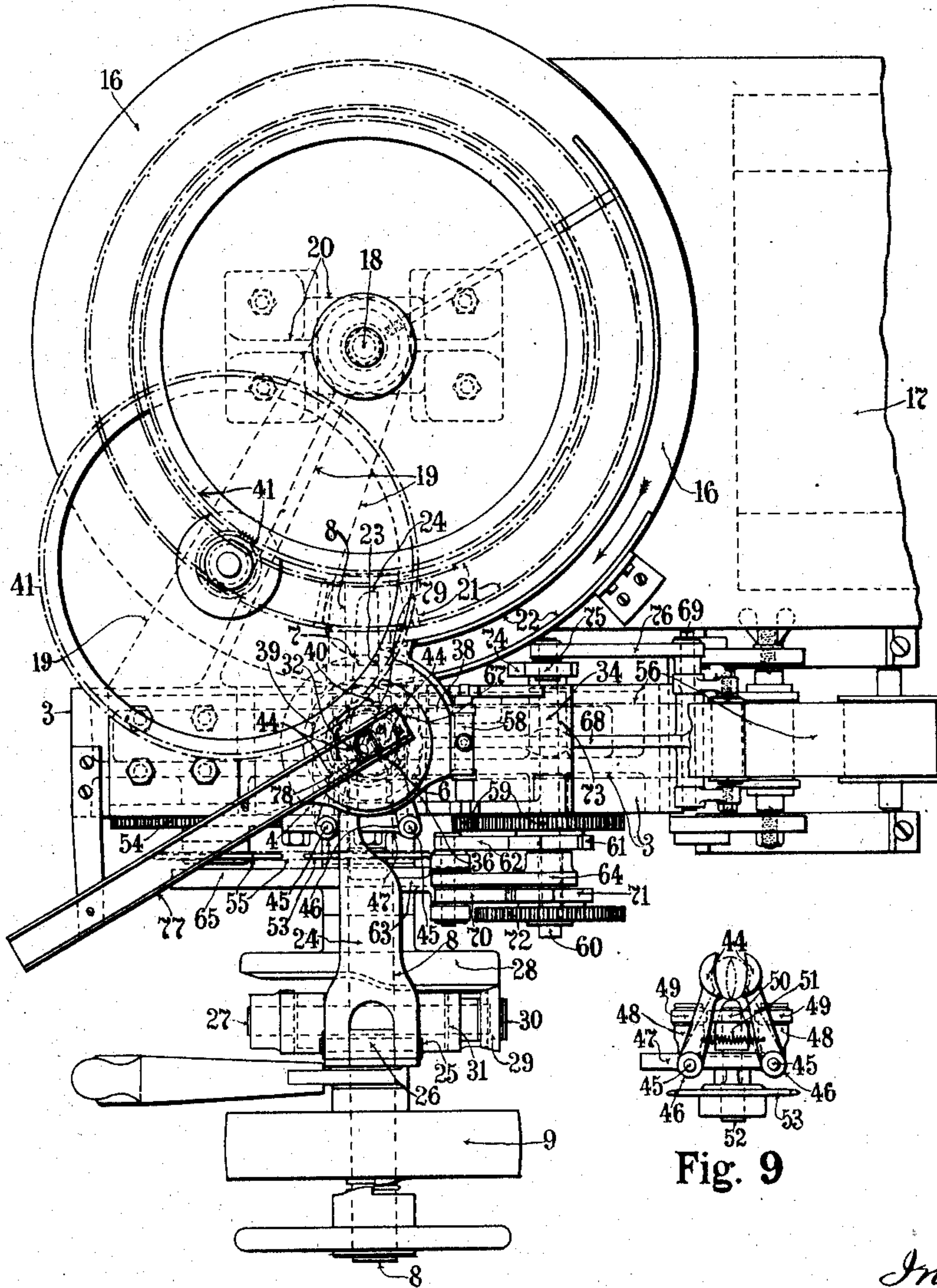


Fig. 9

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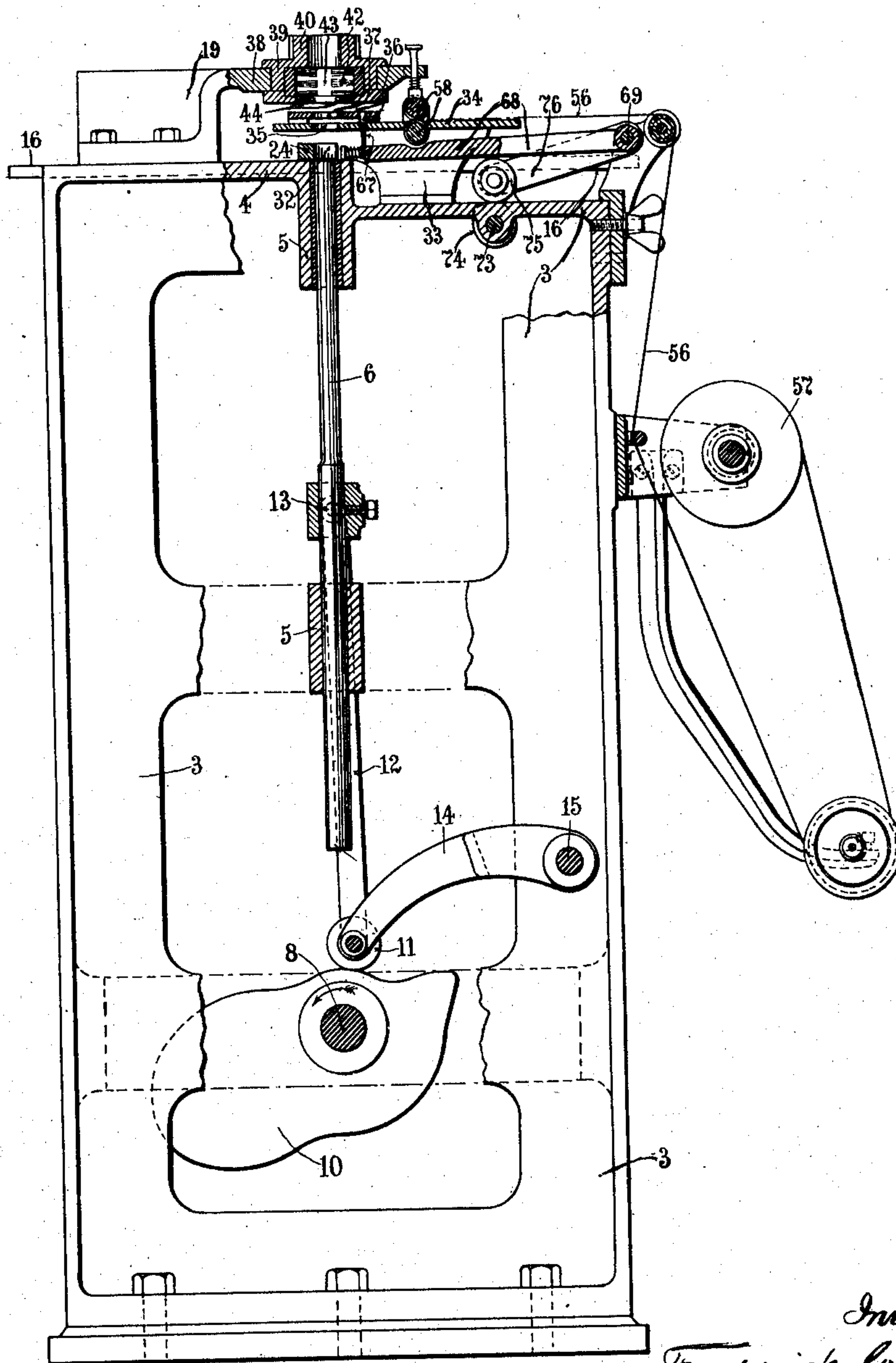
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6 SHEETS—SHEET 5.

Fig. 8



Witnesses
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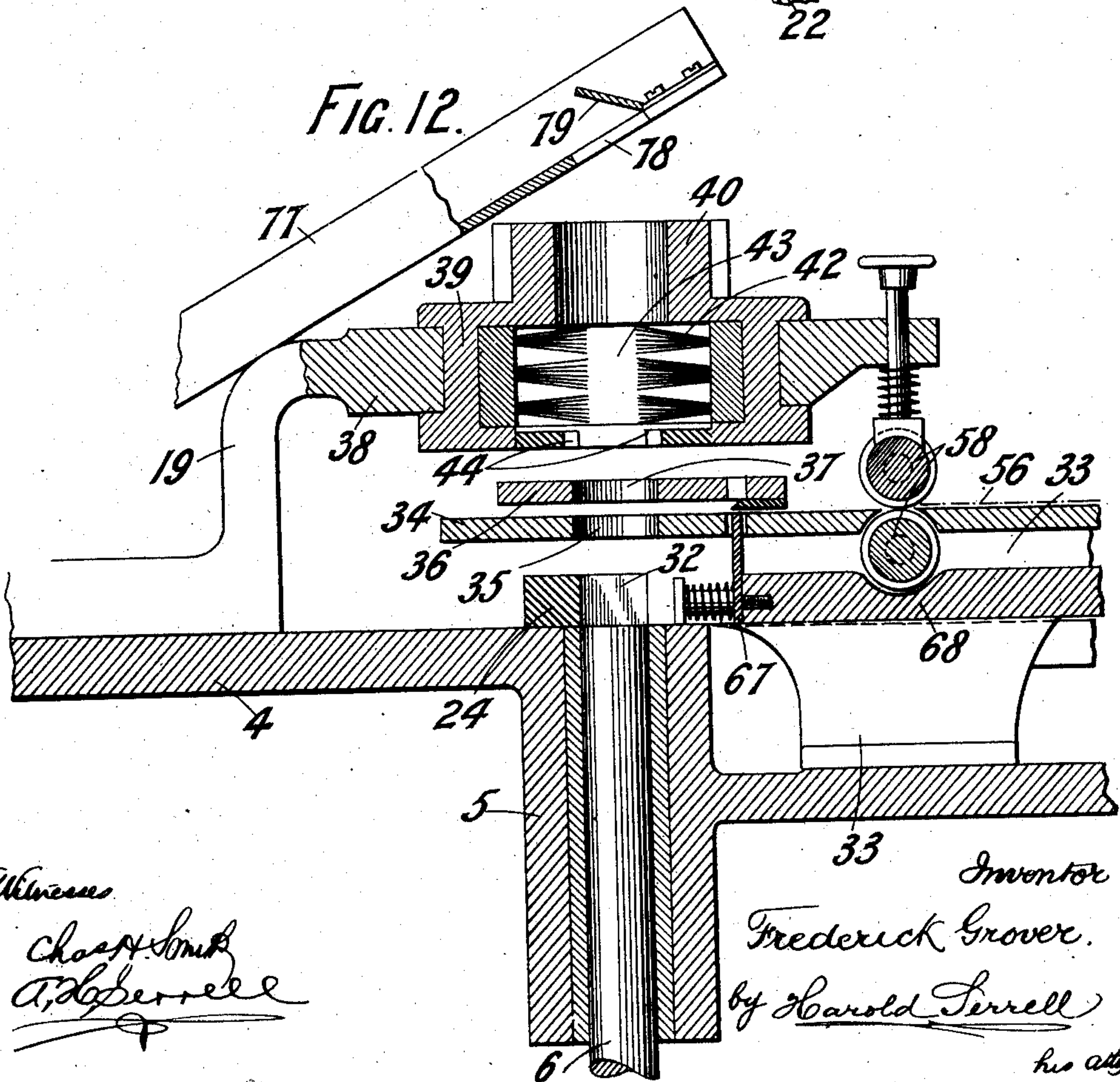
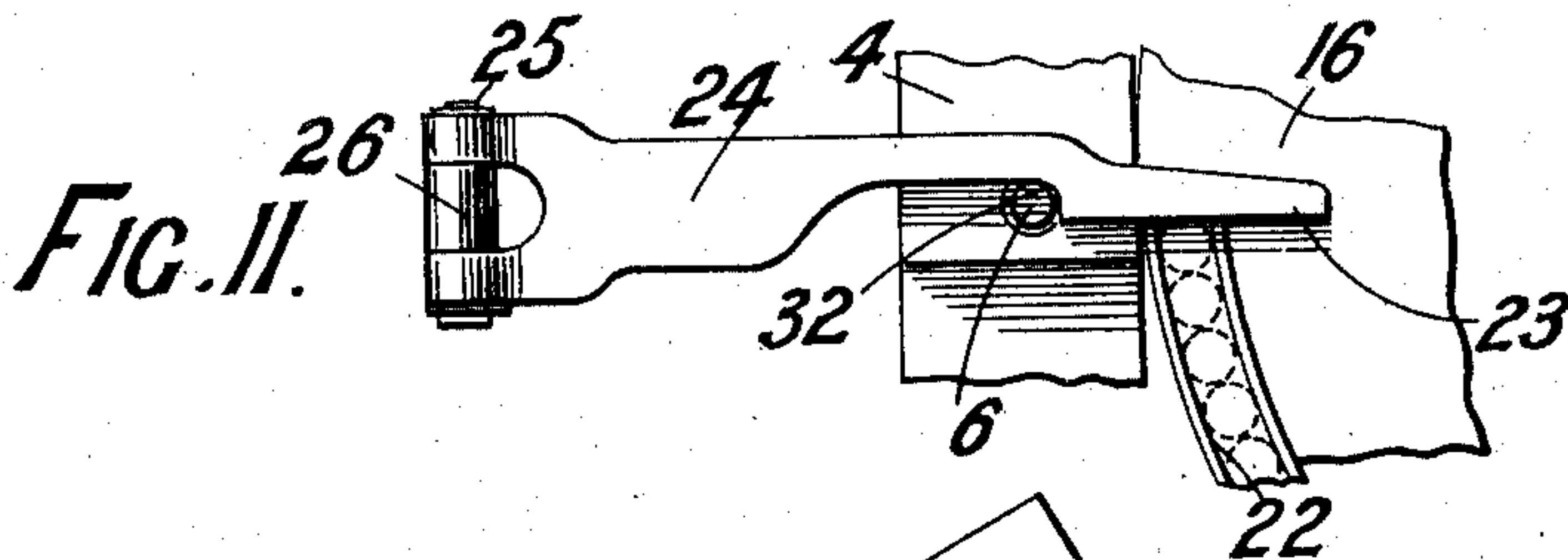
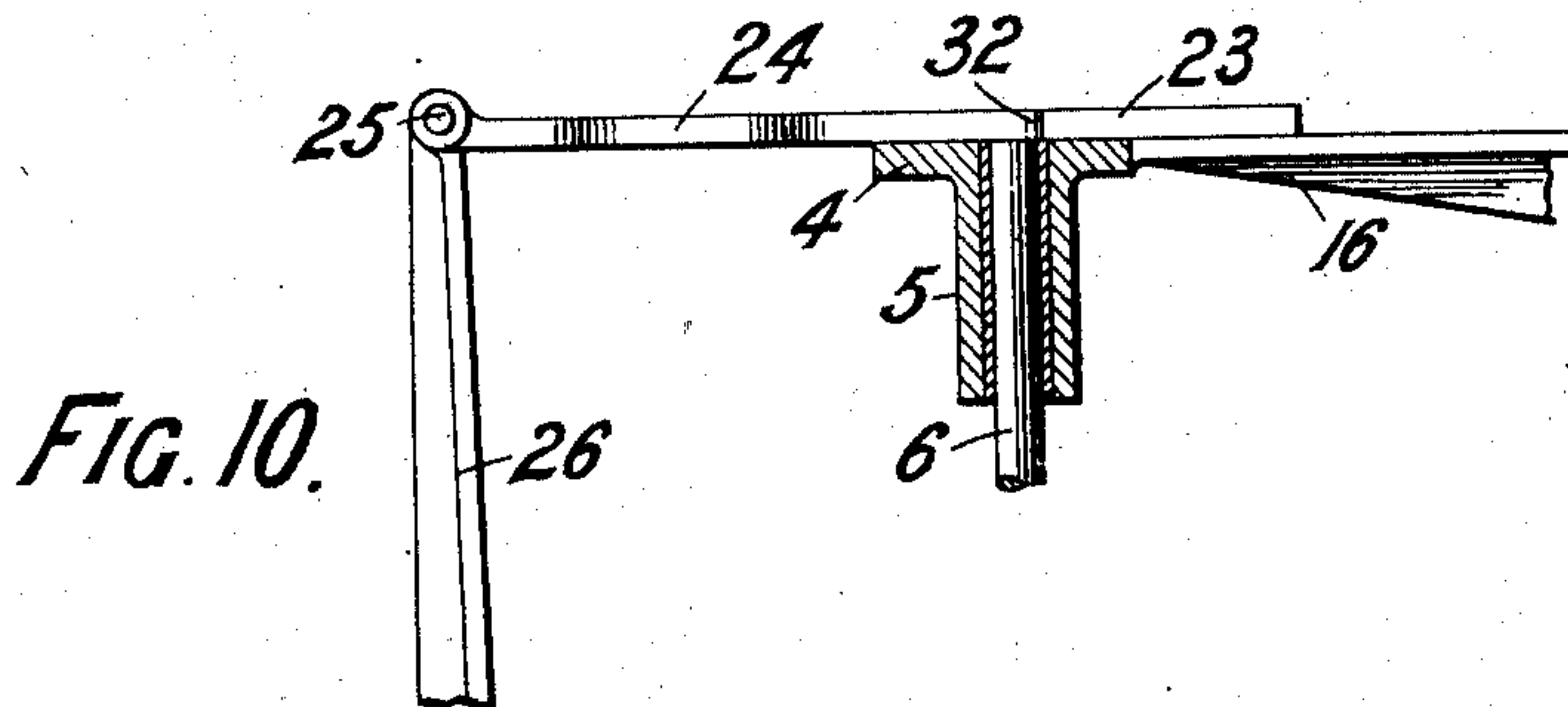
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WRAPPING MACHINE.
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Patented Oct. 25, 1910.

6 SHEETS—SHEET 6.



UNITED STATES PATENT OFFICE.

FREDERICK GROVER, OF LEEDS, ENGLAND, ASSIGNOR TO THE FORGROVE MACHINERY COMPANY, LIMITED, OF LEEDS, ENGLAND.

WRAPPING-MACHINE.

973,863.

Specification of Letters Patent.

Patented Oct. 25, 1910.

Application filed July 24, 1909. Serial No. 509,405.

To all whom it may concern:

Be it known that I, FREDERICK GROVER, a subject of the King of Great Britain, residing at Leeds, in the county of York, England, have invented certain new and useful Improvements in Wrapping-Machines, and of which the following is a specification.

This invention relates to machines for wrapping confections and other articles in tin-foil or other suitable material, the object being to wrap conical or semispherical bodies such as chocolate bon-bons which are in the form of an irregular dome with a flat base.

In carrying out my invention, the bodies to be wrapped are placed upon the outer portion of a horizontally rotating disk between two guide rails so that they are carried forward in single file as the disk rotates until the foremost body comes to a stop against a slide, the disk being capable of sliding beneath the bodies to be wrapped while they remain stationary. The slide when moved forward toward the center of the disk exposes a recess formed therein and allows the row of bodies to advance a step and the foremost one to occupy the recess thus presented, and then as the slide is withdrawn, the front body is drawn into the machine and the wider portion of the slide holds the remaining bodies stationary. The body which is drawn into the machine is brought to rest centrally above a reciprocating vertically moving plunger operated by a cam which gives it alternately a short and a long reciprocation, and the first or short reciprocation of the plunger raises the body so that the upper portion of its dome meets the center of a sheet of tin-foil which has been placed apart ready to intercept it, and as the body rises the tin-foil is carried through a folding plate which draws the wrapper tightly over the body and leaves the edges of the wrapper hanging down around the body below the base thereof. The body with the tin-foil cover, after passing through the folding plate, enters a rotary annular brush which grips the partly covered body and causes the same to rotate, the said annular brush acting merely as a grip for holding the body during rotation. The plunger withdraws after the preliminary reciprocation, and two side fingers are caused to approach centrally below the ro-

tating body and so turn in the hanging portion of the tin-foil upon the base of the said body, and then, as the fingers recede and leave the wrapped body held in the rotating brush, the plunger again approaches and strikes the underside of the body so as to press the spun wrapper closely upon the base of the body and simultaneously eject the completely wrapped body through the brush into a provided chute.

In the drawings at Figures 1 to 4 there are illustrated the several stages in the wrapping of a body effected by the machine hereafter described. At Fig. 1 the body to be wrapped is shown in the position it occupies when about to be raised by the first short reciprocation of the vertically moving plunger to meet the center of the wrapper 2 previously placed apart ready to intercept it. Fig. 2 shows the position of the wrapper and body after being carried by the short reciprocation of the vertically moving plunger through the folding plate and into the embrace of the rotary annular brush, the wrapper being tightly drawn over the body so as to leave the edges of the wrapper hanging down around the body below the base thereof. Fig. 3 shows the position of the body and its wrapper when still in the embrace of the rotary annular brush, the hanging portion of the wrapper having been turned in upon the base of the body by the two side fingers which are caused to approach centrally below the rotating body after the preliminary reciprocation of the vertically moving plunger; and Fig. 4 shows the completely wrapped body when still held by the rotary annular brush, the spun wrapper having been pressed closely upon the underside of the body by the long reciprocation of the vertically moving plunger which simultaneously ejects the completely wrapped body through the brush. To produce this result in inclosing bodies in tin-foil wrappers, the machine is constructed and operates as will now be described with reference to the accompanying drawings of the mechanism, wherein:—Figs. 5, 6 and 7 are respectively a front elevation, a side elevation and a plan, of the machine. Fig. 8 is a part sectional side elevation of the machine, illustrating more fully the wrapping mechanism and showing the vertically moving plunger in the position it occupies when receiving

a body to be wrapped; and Fig. 9 is a plan view of the two side fingers, detached from the machine. Figs. 10 and 11 are respectively side elevation and plan, drawn to a larger scale of part of the machine showing the slide by means of which the sweetmeats to be wrapped are drawn one by one from a rotating table into position over the plunger, and Fig. 12 is a section drawn to a larger scale of the wrapping mechanism shown at Fig. 8, and showing in addition thereto the trough or chute down which the wrapped sweetmeats pass from the said mechanism.

Referring to Figs. 5 to 9 of the drawings, the machine consists of an upstanding frame 3 forming at its upper part a flat horizontal table 4, and the said frame 3 is provided with two fixed bosses 5 through which slides a reciprocating vertically moving plunger 6, which when in its lowest position has its upper end slightly below or level with the upper surface of the table 4 (see Fig. 8). Carried in bearings 7 at the base of the frame 3 is a main shaft 8 which is driven by a belt pulley 9 provided thereon, and alternate short and long reciprocating movements are imparted to the plunger 6 by a cam 10 situated on the main shaft 8 through the medium of a runner 11 and a pair of links 12 pivoted at 13 to the said plunger 6, the lower end of the said links 12 which carry the runner 11 being guided by a controlling arm 14 pivoted at 15 to the frame 3.

Situated at the same level as the frame-table 4 is a horizontally rotating disk 16 upon which the bodies to be wrapped are placed say from a table 17 (see Fig. 7), which disk 16 is carried on a vertical shaft 18 supported at its upper end from the frame-table 4 by a bracket 19 and at its lower end by a footstep bearing 20, and the said shaft 18 is driven by the main shaft 8 through the medium of bevel gearing 21 (see Figs. 5 and 7) by which the desired rotary movement is imparted to the disk 16. The bodies to be wrapped are fed on to the rotating disk 16 between two stationary guide rails 22 so that they are carried forward in single file by the rotating disk 16 until the foremost body comes to a stop against the inner wider portion 23 of a horizontally reciprocating slide 24, the disk 16 being capable of sliding beneath the bodies to be wrapped while they remain stationary.

The outer end of the slide 24 is pivoted at 25 to the upper end of an arm 26 whose lower end is pivoted at 27 to one of the shaft carrying bearings 7, the desired reciprocating movement being imparted to the arm 26 and its slide 24 from the main shaft 8 through the medium of a side-cam 28 provided thereon and a runner 29 mounted on

a stud 30 carried in bearings 31 provided on the said arm 26. The slide 24 is formed with a recess 32, so that when the slide is moved forward toward the center of the disk 16 it allows the row of bodies to advance a step and the foremost one to occupy the recess 32 thus presented, and then as the slide 24 is withdrawn, the front body is drawn off the disk 16 and on to the table 4 of the machine where it comes to rest centrally above the reciprocating vertically moving plunger 6, while the remaining bodies are held stationary upon the rotating disk 16 by the wider portion 23 of the slide 24.

Fixed to the frame 3 is a bracket 33 carrying above the plunger 6 a horizontal tray 34 for the purpose of supporting the wrapper, and concentrically over the plunger 6 and in the tray 34 is formed a circular hole 35 sufficiently large to admit the upward passage of the plunger 6 and the body through it; while immediately above and carried by the wrapper-receiving tray 34 is provided a folding plate 36 which is pierced by a circular hole 37 concentric with that in the tray 34 and large enough to admit the upward passage of the body and its wrapper when projected upward by the plunger 6. The bracket 19 attached to the frame-table 4 is provided with a boss 38 situated over the folding plate 36 and concentric with the hole 37 therein, which boss 38 is bored out to admit a ring 39 attached to a small pinion 40 which is constantly rotated by the disk-shaft 18 through the medium of toothed gearing 41. This ring 39 is lined with bristles standing inward so as to form an internal revolving brush 42, the ends of the bristles nearest the center of rotation forming a circular hole 43 less in diameter than the bodies to be wrapped (see Fig. 8).

Beneath the brush 42 and above the folding plate 36 are situated two side fingers 44 which are independently carried on the upper ends of two vertical spindles 45 mounted in bearings 46 formed on a bracket 47 fixed to the side of the frame 3, while the lower ends of the said spindles 45 are each fitted with an arm 48 carrying a roller 49 in engagement with a cam 50 by which a horizontally radial movement is imparted to the side fingers 44 about their pivots 45 so as to cause them to open against the action of a retaining spring 51, which latter elastically connects the two fingers 44 and keeps the rollers 49 up against their engaging cam 50 (see Fig. 9). This cam 50 is carried on a stud 52 mounted in the bracket 47, and the said stud is provided with a chain wheel 53 which is driven from the main shaft 8 through the medium of spur gearing 54 and chain gearing 55 so as to rotate the cam 50 and thus cause the fingers 44 to open and close equally under the center of the rotat-

ing brush 42. Normally, the said fingers 44 are sufficiently open to allow of the passage of the plunger 6 and the body and wrapper carried thereby (see Figs. 8 and 9). A length of wrapping material 56 is supplied from a roll 57 to the tray 34 by means of a pair of feed rollers 58 which are intermittently driven by spur gearing 59 from a shaft 60 by a ratchet wheel 61 provided thereon, said wheel being operated by a pawl 62 carried on the upper end of a rod 63 which is controlled by radius links 64 and reciprocated by a cam 65 situated on the main shaft 8 through the medium of a runner 66 carried at the lower end of the said rod 63; while a reciprocating knife 67 carried on the inner end of an intermittently rocking arm 68 is employed for severing or dividing the strip 56 into wrappers 2, the arm 68 for this purpose being carried on a stud 69 and operated through the medium of the rod 63 by a pawl 70 provided thereon engaging a ratchet wheel 71 located on the shaft 60, spur gearing 72 and a shaft 73, cam 74 and a runner 75 provided on an arm 76 carried on the stud 69. Over the rotating brush 42 is provided a chute 77 having a hole 78 formed therein directly above the center of the brush, said chute being provided with a plate 79 which causes the completely wrapped bodies as they are ejected from the brush 42 to be deflected down the said chute 77.

In action the machine works as follows:—

A length of wrapping material 56 is fed forward upon the tray 34 by the intermittently driven feed rollers 58 and severed by the reciprocating knife 67 so as to leave a wrapper 2 resting on the said tray 34 centrally over the circular hole 35 formed therein, when the foremost body 1 to be wrapped is drawn off the disk 16 on to the table 4 by the slide 24 and brought to rest centrally above the plunger 6 and directly beneath the wrapper 2 (see Fig. 1). The plunger 6 then rises, which carries the body 1 upward against the wrapper 2 upon the tray 34 and through the folding plate 36 which draws the wrapper 2 tightly over the body 1 and leaves the edges of the wrapper hanging down around the body below the base thereof (see Fig. 2), while the continued upward movement of the plunger 6 raises the body and its wrapper into the rotating brush 42 so that the partially wrapped body is gripped by and rotated with the said brush 42. The plunger 6 then descends, when the side fingers 44 are simultaneously moved inward against the depending cylindrical portion of the wrapper below the body and so turn in or spin the hanging portion of the wrapper upon the base of the body (see Fig. 3). The fingers 44 then retire to their outward position and leave the wrapped body held in the rotating brush

42, when the plunger 6 again rises and comes in contact with the underside of the body so as to press the spun wrapper closely upon the base of the body (see Fig. 4) and simultaneously eject the completely wrapped body through the brush 42 into the provided chute 77.

I claim as my invention:

1. In a machine for wrapping conical or semi-spherical bodies such as chocolate bonbons in tin foil or other wrappers; the combination with a framework, a bearing in the framework, a vertical plunger to slide in said bearing, a flat horizontal table forming part of said framework with the upper plane surface of which the upper end of said plunger normally coincides, means for placing the body to be wrapped upon the said upper end of said plunger, a horizontal stationary tray carried on the framework to support the wrapper and having a through aperture co-axial with said plunger, said tray being located at a distance above said horizontal table, means for supplying and feeding said wrapper onto said horizontal tray, a stationary folding plate having a through aperture co-axial with said plunger, means for supporting said folding plate above said horizontal tray and at a short distance therefrom, an annular brush having internal radial bristles, a bearing supported from the framework within which said annular brush is capable of revolving about its axis co-axial with the axis of said plunger, means for constantly revolving said brush, and means for spinning inward the dependent ends of the wrapper up against the base of the body carried by the revolving brush; of mechanism to slide said plunger upward to carry said body resting thereon and said wrapper through said aperture in said stationary folding plate and into the grip of the bristles of said revolving brush, to cause said plunger to descend during the spinning in of the dependent ends of said wrapper and to again be slid upward through a longer distance to force and carry said wrapped body through said rotating annular brush to deliver said body and simultaneously press said wrapper closely to the base of said body substantially as set forth.

2. In a machine for wrapping conical or semi-spherical bodies such as chocolate bonbons in tin foil or other wrappers; the combination with a framework, a bearing in the framework, a vertical plunger to slide in said bearing, a flat horizontal table forming part of said framework with the upper plane surface of which the upper end of said plunger normally coincides, means for placing the body to be wrapped upon the said upper end of said plunger, a horizontal stationary tray carried on the framework to support the wrapper and hav-

ing a through aperture co-axial with said plunger, said tray being located at a distance above said horizontal table, means for supplying and feeding said wrapper on to
 5 said horizontal tray, a stationary folding plate having a through aperture co-axial with said plunger, means for supporting said folding plate above said horizontal tray and at a short distance therefrom, an annu-
 10 lar brush having internal radial bristles, a bearing supported from the framework within which said annular brush is capable of revolving about its axis co-axial with the axis of said plunger, means for constantly
 15 revolving said brush, horizontal pivoted side fingers beneath said annular brush, said fingers being normally separated to allow of the passage of the said plunger and the body and wrapper carried thereby,
 20 means for closing said fingers while said body and wrapper are held in said rotating brush to spin the dependent ends of said wrapper inward under the base of the body being wrapped, and means for again sepa-
 25 rating said fingers; of mechanism to slide said plunger upward to carry said body resting thereon through said aperture in said horizontal tray to carry said body and said wrapper located above said tray through
 30 said aperture in said stationary folding plate and into the grip of the bristles of said revolving brush, to cause said plunger to descend during the spinning in of the dependent ends of said wrapper, and to again
 35 be slid upward through a longer distance to force and carry said body through said rotating annular brush to deliver said body, substantially as set forth.

3. In a machine for wrapping conical or
 40 semi-spherical bodies such as chocolate bonbons in tin foil or other wrappers; the combination with a framework, a bearing in the framework, a vertical plunger to slide in
 45 said bearing, a flat horizontal table forming part of said framework with the upper plane surface of which the upper end of said plunger normally coincides, means for placing the body to be wrapped upon the
 50 said upper end of said plunger, a horizontal stationary tray carried on the framework to support the wrapper and having a through aperture co-axial with said plunger, said tray being located at a distance above said
 55 horizontal table, means for supplying and feeding said wrapper on to said horizontal tray, a stationary folding plate having a through aperture co-axial with said plunger, means for supporting said folding plate above said horizontal tray and at a short
 60 distance therefrom, a bracket from said framework, a boss formed on said bracket and having a circular through aperture, a ring carried in said aperture and capable of revolving therein, an annular brush co-
 65 axial with said plunger and carried by

said ring and located above said folding plate, means for revolving said ring, horizontal pivoted side fingers beneath said annular brush, said fingers being normally
 70 separated to allow of the passage of said plunger and the body and wrapper carried thereby, and means for closing said fingers while said body and wrapper are held in said annular rotating brush to spin the de-
 75 pendent ends of said wrapper inward under the base of the body being wrapped, and means for again separating said fingers; of mechanism to slide said plunger upward to carry said body resting thereon through
 80 said aperture in said horizontal tray, to carry said body and said wrapper located above said tray through said aperture in said stationary folding plate and into the grip of said annular revolving brush, to
 85 cause said plunger to descend and to again be slid upward through a longer distance to force and carry said wrapped body through said rotating annular brush, a stationary inclined chute having a through aperture in
 90 its base co-axial with said annular brush, a deflecting plate in said chute above said aperture to deflect said body carried through said aperture by said plunger down said chute, substantially as set forth.

4. In a machine for wrapping conical or
 95 semi-spherical bodies such as chocolate bonbons in tin foil or other wrappers; the combination with a framework, a bearing in the framework, a vertical plunger to slide in
 100 said bearing, a flat horizontal table forming part of said framework with the upper plane surface of which the upper end of said plunger normally coincides, means for placing the body to be wrapped upon the
 105 said upper end of said plunger, a horizontal stationary tray carried on the framework to support the wrapper and having a through aperture co-axial with said plunger, said tray being located at a distance
 110 above said horizontal table, means for supplying and feeding said wrapper on to said horizontal tray, a stationary folding plate having a through aperture co-axial with said plunger, means for supporting said
 115 folding plate above said horizontal tray and at a short distance therefrom, an annular brush having internal radial bristles, a bearing supported from the framework within which said annular brush is capable of re-
 120 volving about its axis co-axial with the axis of said plunger, means for constantly revolving said brush, and means for spinning inward the dependent ends of the wrapper up against the base of the body carried by
 125 the revolving brush; of a main horizontal first motion shaft located near the base of the machine, bearings in the framework to carry said shaft, a controlling arm pivoted at one end to the framework, a runner
 130 carried on a pivot at the opposite end of

said arm, a pair of links pivoted at their upper ends to the plunger and at their lower ends to the pivot of said runner on said controlling arm, and a cam on said first motion shaft to act on said runner to slide said plunger upward to carry said body to be wrapped resting thereon and said wrapper through said aperture in said stationary folding plate and into the grip of the bristles of said revolving brush, to cause said plunger to descend during the spinning in of the dependent ends of said wrapper and to again be slid upward through a longer distance to force said wrapped body through said rotating annular brush and to flatten said wrapper on to the base of said body, substantially as set forth.

5. In a machine for wrapping conical or semi-spherical bodies such as chocolate bonbons in tin foil or other wrappers; the combination with a framework, a bearing in the framework, a vertical plunger to slide in said bearing, a flat horizontal table forming part of said framework with the upper plane surface of which the upper end of said plunger normally coincides, means for placing the body to be wrapped upon the said upper end of said plunger, a horizontal stationary tray carried on the framework to support the wrapper and having a through aperture co-axial with said plunger, said tray being located at a distance above said horizontal table, means for supplying and placing said wrapper upon said tray, a stationary folding plate having a through aperture co-axial with said plunger, means for supporting said folding plate above said horizontal tray and at a short distance therefrom, a bracket carried from said framework extending horizontally above said folding plate, a boss formed on said bracket above said folding plate and having a circular through aperture, a ring carried in said aperture and capable of revolving therein, an annular brush co-axial with said plunger and carried by said ring, a vertical revoluble shaft, bearings to carry said shaft, means for constantly rotating said vertical shaft, external annular teeth formed on said ring carrying said brush, and toothed gearing driven by said vertical shaft and engaging said teeth formed on said brush-carrying ring to give the latter constant rotation, and means for spinning inward the dependent ends of the wrapper up against the base of the body carried by the revolving brush; of mechanism to slide said plunger upward to carry said body resting thereon and said wrapper through said aperture in said stationary folding plate and into the grip of the bristles of said revolving brush, to cause said plunger to descend during the spinning in of the dependent ends of said wrapper and to again be slid upward through a longer dis-

tance to force and carry said wrapped body through said rotating annular brush to deliver said body and simultaneously press said wrapper closely to the base of said body, substantially as set forth.

6. In a machine for wrapping conical or semi-spherical bodies such as chocolate bonbons in tin foil or other wrappers; the combination with a framework, a bearing in the framework, a vertical plunger to slide in said bearing, a flat horizontal table forming part of said framework with the upper plane surface of which the upper end of said plunger normally coincides, means for placing the body to be wrapped upon said upper end of said plunger, a horizontal stationary tray carried on the framework to support the wrapper and having a through aperture co-axial with said plunger, said tray being located at a distance above said horizontal table, means for supplying and placing said wrapper on said tray, a stationary folding plate having a through aperture co-axial with said plunger, means for supporting said folding plate above said horizontal tray and at a short distance therefrom, an annular brush having internal radial bristles, a bearing supported from the framework within which said annular brush is capable of revolving about its axis co-axial with the axis of said plunger, means for constantly revolving said brush, two side fingers located immediately beneath said revolving brush, vertical spindles carried in bearings in the framework to carry said side fingers, a spring tending to draw said side fingers toward each other to close them together beneath the end of the wrapper pendent from the body carried in said brush, arms on the lower end of said finger spindles, a revolving stud carried in bearings in the framework, a cam on one end of said stud to act on said spindle arms to separate said side fingers at times, and means for driving said spindle so that said cam carried thereby permits said side fingers to close to spin in the pendent ends of said wrapper beneath the base of said body to be wrapped and to open said side fingers to permit the passage of said plunger and said body and wrapper carried thereby; of mechanism to slide said plunger upward to carry said body resting thereon and said wrapper through said aperture in said stationary folding plate and into the grip of the bristles of said revolving brush, to cause said plunger to descend during the spinning in of the dependent ends of said wrapper and to again be slid upward through a longer distance to force and carry said wrapped body through said rotating annular brush to deliver said body and simultaneously press said wrapper closely to the base of said body substantially as set forth.

7. In a machine for wrapping conical or

semi-spherical bodies such as chocolate bon-
bons in tin foil or other wrappers; the com-
bination with a framework, a bearing in the
framework, a vertical plunger to slide in
5 said bearing, a flat horizontal table forming
part of said framework with the upper plane
surface of which the upper end of said plun-
ger normally coincides, a vertical shaft,
means for revolving said shaft, a horizontal
10 disk carried by said shaft to receive the
bodies to be wrapped, the upper surface of
said disk being level with the upper surface
of said flat horizontal table, a pair of segmen-
tal guide rails carried by said framework
15 above and adjacent to the upper surface of
said disk between which guide rails said
bodies are passed, a horizontally reciprocating
slide passing across the top of said flat
horizontal table and normally closing the
20 exit end of said guide rails, said slide hav-
ing a recess in its face edge, means for ad-
vancing said slide to bring said recess to the
end of said guide rails to permit of the en-
trance into said recess of one of said bodies
25 carried by said revolving table and to return
said slide to bring said body carried thereby
on to the end of said plunger and to again
permit said slide to close the end of said
guide rails, a horizontal stationary tray car-
30 ried on the framework to support the wrap-
per and having a through aperture co-axial
with said plunger, said tray being located
at a distance above said horizontal table,
means for supplying and feeding said wrap-
35 per onto said horizontal tray, a stationary
folding plate having a through aperture co-
axial with said plunger, means for support-
ing said folding plate above said horizontal
tray and at a short distance therefrom, an
40 annular brush having internal radial bris-
tles, a bearing supported from the frame-
work within which said annular brush is ca-
pable of revolving about its axis co-axial
with the axis of said plunger, means for
45 constantly revolving said brush, and means
for spinning inward the dependent ends of
the wrapper up against the base of the body
carried by the revolving brush; of mecha-
nism to slide said plunger upward to carry
50 said body resting thereon and said wrapper
through said aperture in said stationary
folding plate and into the grip of the bris-
tles of said revolving brush, to cause said
plunger to descend during the spinning in
55 of the dependent ends of said wrapper and
to again be slid upward through a longer
distance to force and carry said wrapped
body through said rotating annular brush
to deliver said body and simultaneously

press said wrapper closely to the base of 60
said body substantially as set forth.

8. In a machine for wrapping conical or
semi-spherical bodies such as chocolate bon-
bons in tin foil or other wrappers; the com- 65
bination with a framework, a bearing in the
framework, a vertical plunger to slide in
said bearing, a flat horizontal table forming
part of said framework with the upper plane
surface of which the upper end of said plun-
ger normally coincides, means for placing 70
the body to be wrapped upon the said upper
end of said plunger, a horizontal stationary
tray carried on the framework to support
the wrapper and having a through aperture
co-axial with said plunger, said tray being 75
located at a distance above said horizontal
table, a roller free to revolve, a length of
wrapping material carried on the said roller,
a pair of feed rollers carried in the frame-
work between which said wrapper passes 80
from said roller, means for intermittently
rotating said feed rollers to feed the requisite
length of wrapping material on to said hori-
zontal stationary tray, a knife to divide the
fed length of wrapping material, and means 85
for reciprocating said knife, a stationary
folding plate having a through aperture co-
axial with said plunger, means for support-
ing said folding plate above said horizontal
tray and at a short distance therefrom, an 90
annular brush having internal radial bristles,
a bearing supported from the framework with-
in which said annular brush is capable of re-
volving about its axis co-axial with the axis of
said plunger, means for constantly revolving 95
said brush, and means for spinning inward
the dependent ends of the wrapper up against
the base of the body carried by the revolving
brush; of mechanism to slide said plunger
upward to carry said body resting thereon 100
and said wrapper through said aperture in
said stationary folding plate and into the
grip of the bristles of said revolving brush,
to cause said plunger to descend during the
spinning in of the dependent ends of said 105
wrapper and to again be slid upward through
a longer distance to force and carry said
wrapped body through said rotating annu-
lar brush to deliver said body and simulta-
neously press said wrapper closely to the 110
base of said body, substantially as set forth.

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

FREDERICK GROVER.

Witnesses:

JOHN JOWETT,
VANCE E. GALLOWAY.