

No. 763,524.

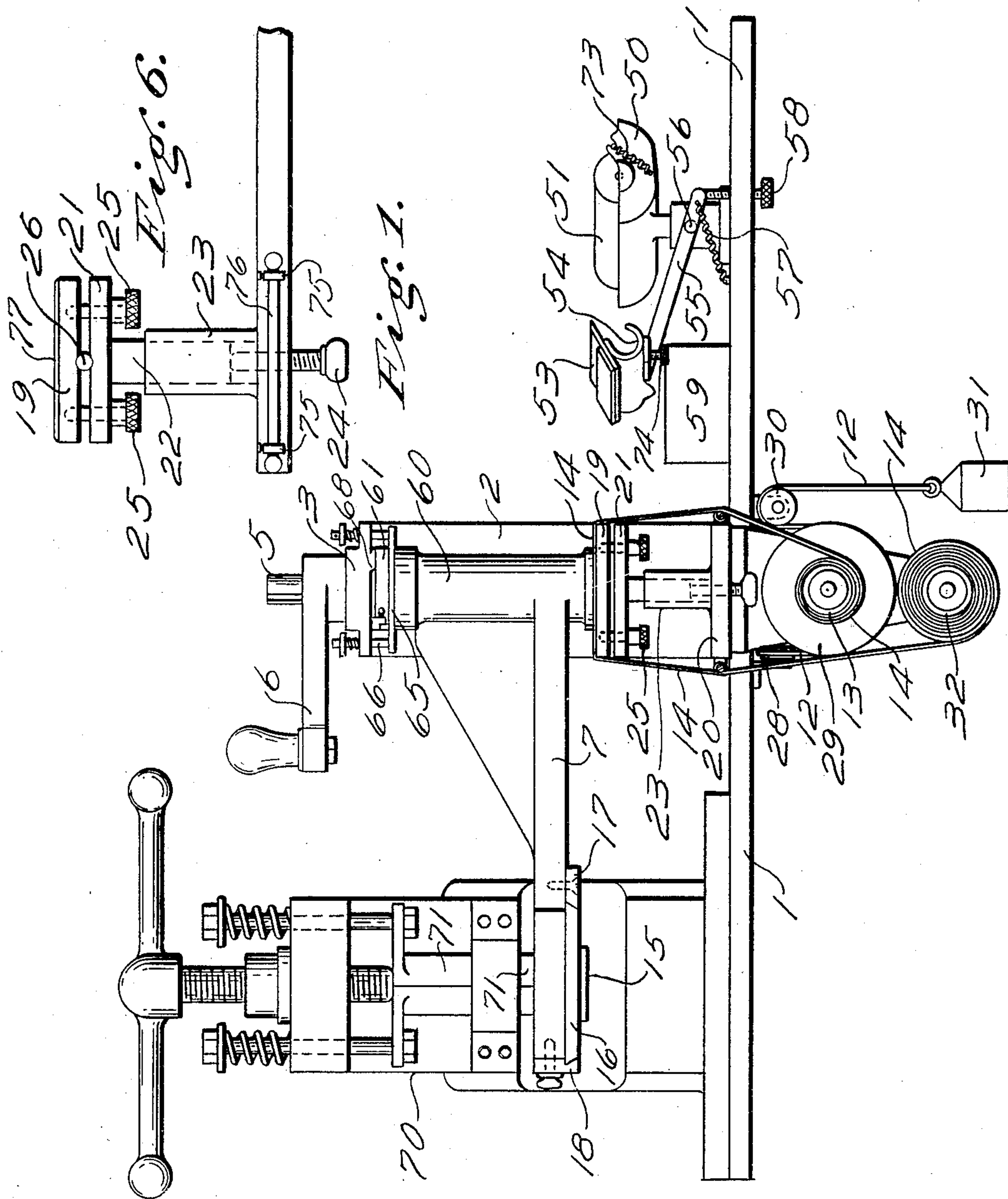
PATENTED JUNE 28, 1904.

H. G. TURNER.  
EMBOSSING PRESS ATTACHMENT.

APPLICATION FILED AUG. 24, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



Witnesses:  
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Glen C. Stephens.

*Inventor;*  
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*by Sumner & Sumner*  
*Attorneys.*

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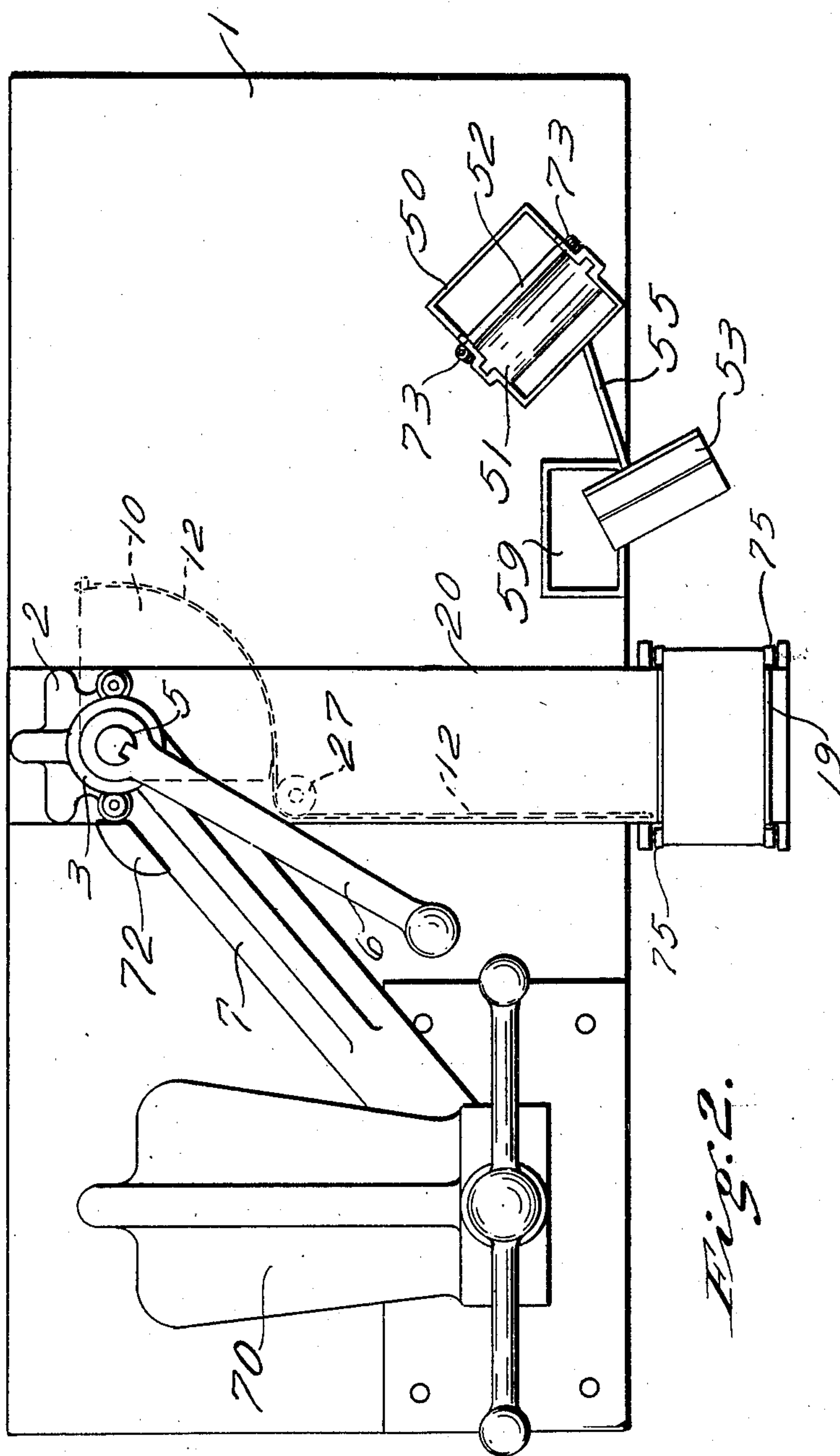


Fig. 2.

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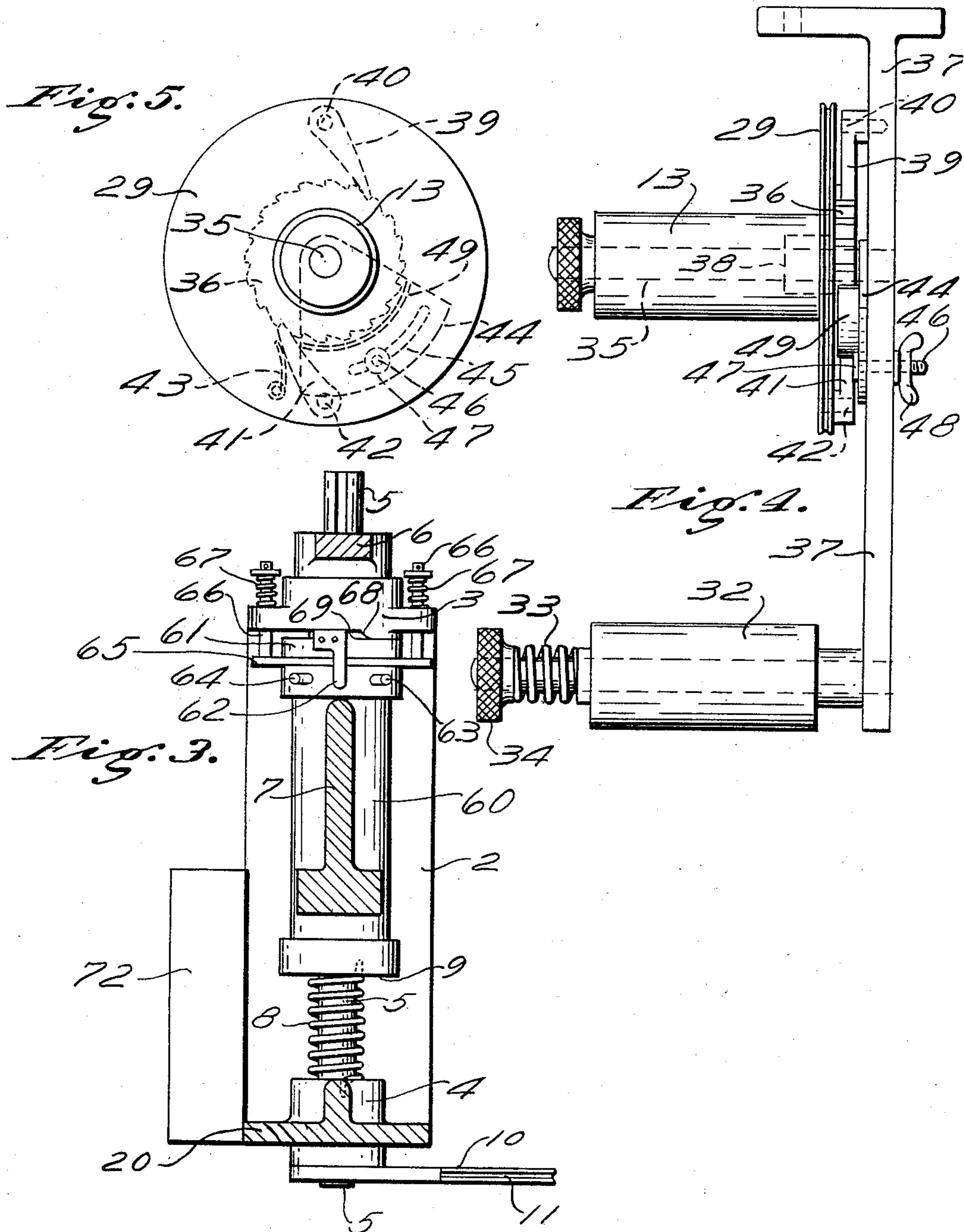
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3 SHEETS—SHEET 3.



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# UNITED STATES PATENT OFFICE.

HARRY G. TURNER, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO  
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## EMBOSSING-PRESS ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 763,524, dated June 28, 1904.

Application filed August 24, 1903. Serial No. 170,594. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY G. TURNER, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Embossing-Press Attachments, of which the following is a specification.

The main objects of my invention are to provide an improved attachment for embossing-presses for carrying the die, for inking same, and for wiping the ink from the surface thereof and to provide improved means for suitably feeding the strip of paper or other material with which the die is wiped. I accomplish these objects by the device shown in the accompanying drawings, in which—

Figure 1 is a front elevation of an attachment constructed according to my invention and applied to an embossing-press. Fig. 2 is a top plan of same. Fig. 3 is a front elevation showing in detail the parts which support and operate the die-carrying arm, the crank and die-carrying arm being turned toward the front and shown in section. Fig. 4 is a side elevation of the rolls for carrying the paper and the support for said rolls. Fig. 5 is a front elevation of the upper roll and its connections shown in Fig. 4. Fig. 6 is an enlarged side elevation illustrating the construction permitting the adjustment of the platform 19.

In the device shown the embossing-press and attachment are secured to a table-top 1. The supports for the table are not shown in the drawings. The standard 2 is secured to the table-top and carries the bearings 3 and 4, in which the shaft 5 is journaled. The crank 6 is feathered upon the upper end of the shaft 5, and the arm 7 is rigidly secured to said shaft below the bearing 3, so that said arm has a vertical movement with the shaft, while the crank is kept at a convenient height. The arm 7 is normally held in its upward position on the shaft 5 by means of the spring 8, acting between the bearing 4 and the shoulder 9 on said arm. A sector 10 is secured to the lower end of the shaft 5 and is provided with a groove 11 for the cord 12, which operates

the roll 13 for winding up the strip of paper 14, which is used for wiping the die 15. The die 15 is secured to the block 16, which is held on the under surface of the arm 7 by means of the members 17 and 18, which are screwed to said arm. The paper 14 is held in position to wipe the surface of the die 15 by means of the adjustable platform 19. Said platform is supported above an extension 20 of the standard 2. The platform 19 is supported directly upon a subplatform 21, which has a depending extension 22 slidably seated in the member 23, which projects upwardly from the extension 20. The height of the subplatform 21 is regulated by means of a set-screw 24. The platform 19 is held to the proper level lengthwise of the arm 7 by means of the set-screws 25, said platform being tilted on a rod or pin 26. The cord 12 passes through sheaves 27, 28, 29, and 30 and has a weight 31 secured to its end. Said weight holds the cord 12 at a sufficient tension on the shaft 29 so that when said cord is pulled by means of the sector 10 the sheave 29, with the ratchet-wheel 36 and the roll 13, will be turned, so as to wind the paper upon said roll, and thereby advance same over the platform 19. The paper 14 is unwound from the roll 32, the tension of which is regulated by means of the spring 33 and thumb-screw 34. The sheave 29, roll 13, and ratchet-wheel 36 are loose on the shaft 35, which is rigidly secured to the bracket 37. The roll 13 and ratchet-wheel 36 are connected by means of a collar or hub 38 on the ratchet-wheel, which is keyed to the roll 13. The pawl 39 is pivoted to the bracket 37 at 40. The pawl 41 is pivoted to the sheave 29 at 42 and has a spring 43 secured to said sheave, which normally holds said pawl in engagement with the ratchet-wheel 36. A plate 44 in the form of a sector is mounted on the shaft 35 and adjustable along its slot 45 on the pin 46, which projects from said slot and is seated in the bracket 37. The head 47 of said pin is tightened against the plate 44 by means of the thumb-screw 48. Said plate is provided with a flange 49, which projects in the path of the pawl 43, so as to prevent the



engagement with the ratchet-wheel 36 until said pawl has passed the end of said flange. This provides for an adjustment which will limit the action of said pawl upon the ratchet-wheel, so as to limit the amount of paper to be wound upon the roll 13 at each swing of the sector 10. When the paper is first being wound upon the roll 13, it will be necessary to have the pawl 41 engage the ratchet-wheel 36 at a position to the right of that shown in Fig. 5, so as to turn the roll 13 far enough to pull the paper about the length of the platform 19. After considerable paper has been wound upon the roll 13, the circumference then being greater than before, the plate may be adjusted toward the position shown in Fig. 5, so that the ratchet-wheel will not be moved by the pawl as far as at first described. The increased circumference of the roll of paper upon the roll 13 will still cause the paper to be drawn a sufficient distance over the platform 19 without moving the ratchet-wheel 35 through as great an arc.

An inking device is secured to the table 1 in the path of the arm 7 in suitable position to have contact with the die 15 before same is wiped by the paper on the platform 19. Said inking device consists of a receptacle 50, having journaled therein an inking-roll 51 and a regulating-roll 52, bearing against the inking-roll. A flexible scraper 53, which may be made of rubber, is secured above the trough 54, which is supported on the lever 55 and fulcrumed to the base of the inking-receptacle at 56. The spring 57 normally raises the scraper 53, and its upward position is controlled by the set-screw 58 acting under the lever 55. A receptacle 59 is provided for collecting the drip of ink from the trough 54.

Above the hub 60 of the arm 7 is journaled a cam 61, provided with a depending shoulder 62, arranged to act against the pins 63 and 64, which are rigid on the upper part of said hub. The washer 65 has rigidly secured thereto the pins 66, which pass through suitable apertures in the bearing 3 and are normally held in the position shown by means of the springs 67. A shoulder 68 is provided on the under surface of the bearing 3 for coacting with the shoulder 69 and the cams 61 when said cam is turned by means of contact of the pin 64 with the depending shoulder 62.

The operation of the device is as follows: When the crank 6 is turned toward the right of Fig. 1, so as to bring the die 15 toward the inking-roller 51, the pin 64 will be brought in contact with the shoulder 62, so as to cause the hub 60 with its arm 7 to be depressed against the action of the spring 5, and thereby bring the die 15 into contact with the inking-roller 51. In being moved toward the right of Fig. 1 the die 15 passes free from the paper on the platform 19, since the cam 61 is then in the raised position shown in Fig. 3. When the crank 6 has been turned far

enough so as to bring the pin 64 into contact with the shoulder 62, the hub 60 will be depressed, as before mentioned. When the crank 6 is now turned toward the front of Fig. 1, the cam 61 will act so as to depress the hub 60 until the die 15 has been carried over and in contact with the paper on the platform 19. After the die has passed said platform as the crank 6 is moved farther toward the embossing-press 70 the pin 63 on the hub 60 will come in contact with the shoulder 62, and thus move the cam back to the raised position in which same is shown in Figs. 3 and 1. The arm 7 is now at a suitable height to carry the die 15 in proper position into the embossing-press 70 and under the plunger 71. When said plunger is now moved downward in the action of the embossing-press, the arm 7 and its hub 60 will move downward against the action of the spring 5; but the cam 61 will be retained in the position shown in Fig. 3 through the action of the washer 65 and its springs 67. While the die 15 is being carried from the inker toward the embossing-press the same will be in the lower position through the action of the cam 61 and will then be brought in contact with the paper 14 on the platform 19, so as to be wiped thereby. After the die has been wiped the cam 61 permits the arm 7 to assume the raised position shown in Fig. 1. When the arm 7 is again moved out of the embossing-press by turning the crank 6, the sector 10 will act on the paper, as before described, so as to bring a new part of the paper in suitable position on the platform 19 to again wipe the die upon its return from the inker. Since the arm 7 is in its raised position when passing from the embossing-press toward the inker, the die will be free from the paper during the movement of said paper through the action of the sector 10. The stop 72 limits the movement of the arm 7 to the proper position in the embossing-press. The springs 73 hold the small roller 52 in contact with the inking-roller 51. The scraper 53 with its trough 54 may be adjusted to any desired angle on the arm 55 by means of the set-screw 74. The collars 75 are adjustable on the rods 76, which are secured to the standard, said collars serving as guides for the wiping-strip 14 to lead same properly from the platform 19. The upper surface of the platform 19 is covered with a resilient pad 77, which serves as a cushion under the wiping-strip 14. The weight 31 also serves to urge the arm 7 against the stop 72. The spring 8, being secured to the hub 60 and to the bearing 4, has a similar effect in urging the arm 7 against said stop 72.

It will be understood that some of the details of the device shown may be altered without departing from the spirit of my invention. I therefore do not confine myself to such details except as hereinafter limited in the claims.



What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a device of the class described, the combination of a die-carrying arm rotatable on a vertical axis; an inker and a die-wiper located in the path of said arm; and means for raising the die free from said wiper when the arm is moved over the wiper toward the inker and for depressing said die upon the inker and upon the wiper when said arm is returned from the inker, substantially as described.

2. In a device of the class described, the combination of a die-carrying arm rotatable on a vertical axis; an inker and a die-wiper located in the path of said arm; a cam acting on said arm so as to depress the die upon the inker and upon the wiper when carried in a direction from the inker over the wiper; and yielding means normally holding said die free from the wiper when moved over same toward the inker, substantially as described.

3. In a device of the class described, the combination of a rotatable arm adapted to carry a die; a die-wiper and an inker located in the path of said arm; said die-wiper comprising a strip of suitable wiping material with means for pressing same against the die and means for advancing same so as to intermittently present new surfaces to the die; and a connection between said arm and said wiper whereby said strip is moved through the movement of said arm, substantially as described.

4. In a device of the class described, the combination of an embossing-press; an inker; a die-wiper secured between said embossing-press and said inker; a die-carrying arm adapted to reciprocate the die between the embossing-press and the inker and over the wiper; means for depressing said die upon the wiper when passing from the inker toward the embossing-press; and means for raising said die free from the wiper when passing from the embossing-press toward the inker, substantially as described.

5. In a device of the class described, the combination of an embossing-press; an inker; a die-wiper secured between said embossing-press and said inker; a die-carrying arm adapted to reciprocate the die between the embossing-press and the inker and over the wiper; means normally holding said die free from the wiper; and a cam adapted to depress said die upon the inker and wiper when traveling from the inker toward the embossing-press, substantially as described.

6. In a device of the class described, the com-

bination of an embossing-press; a die-carrying arm journaled on a vertical axis and adapted to carry the die into said press, said arm having a yielding support permitting same to be carried downwardly through the action of said press; a die-wiper comprising a strip of suitable wiping material with means for holding same in contact with the die and means for intermittently feeding said strip; said feeding means being suitably connected to said arm so as to be actuated through the movement of said arm, substantially as described.

7. In a device of the class described, the combination of an embossing-press; a die-carrying arm journaled on a vertical axis; a wiper and an inker located in the path of said arm; yielding means normally holding said arm in a raised position with the die free from said wiper and inker and permitting same to be depressed when in the embossing-press; and a cam loosely mounted above said arm and having a depending shoulder; a member secured above said cam and having a shoulder adapted to coact with the cam; said arm having a pair of projections thereon each adapted to engage said depending shoulder and suitably located to prevent the action of said cam and keep said arm and die free from the wiper and inker when moved in one direction and to move said arm downwardly so as to carry said die into contact with said inker and said wiper when returned in the opposite direction, substantially as described.

8. In a device of the class described, the combination of a movable die-carrying arm; a die-wiper and an inker located in the path of said arm; said die-wiper comprising a strip of suitable wiping material with means for holding same in contact with the die, means for intermittently feeding said strip, a roller for winding up said strip, a ratchet-wheel rigid on said roller, a movable member carrying a pawl adapted to engage said ratchet-wheel, adjustable means along the path of said member adapted through contact with the pawl to control the position at which the pawl engages the ratchet-wheel; and a connection between said member and the die-carrying arm whereby said roller is actuated to wind up the strip through the movement of said arm, substantially as described.

Signed at Chicago this 19th day of August, 1903.

HARRY G. TURNER.

Witnesses:

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WM. R. RUMMLER.