

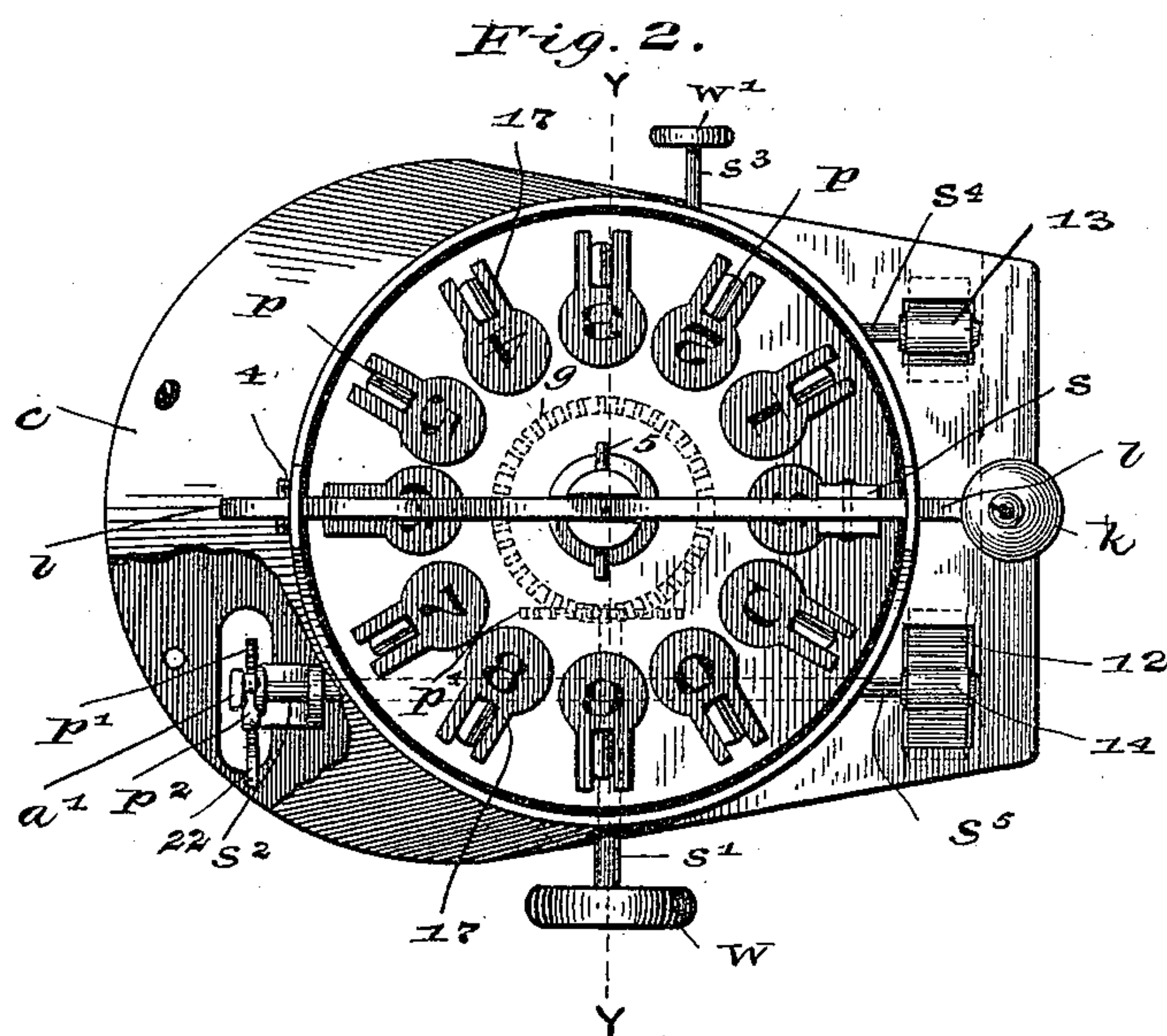
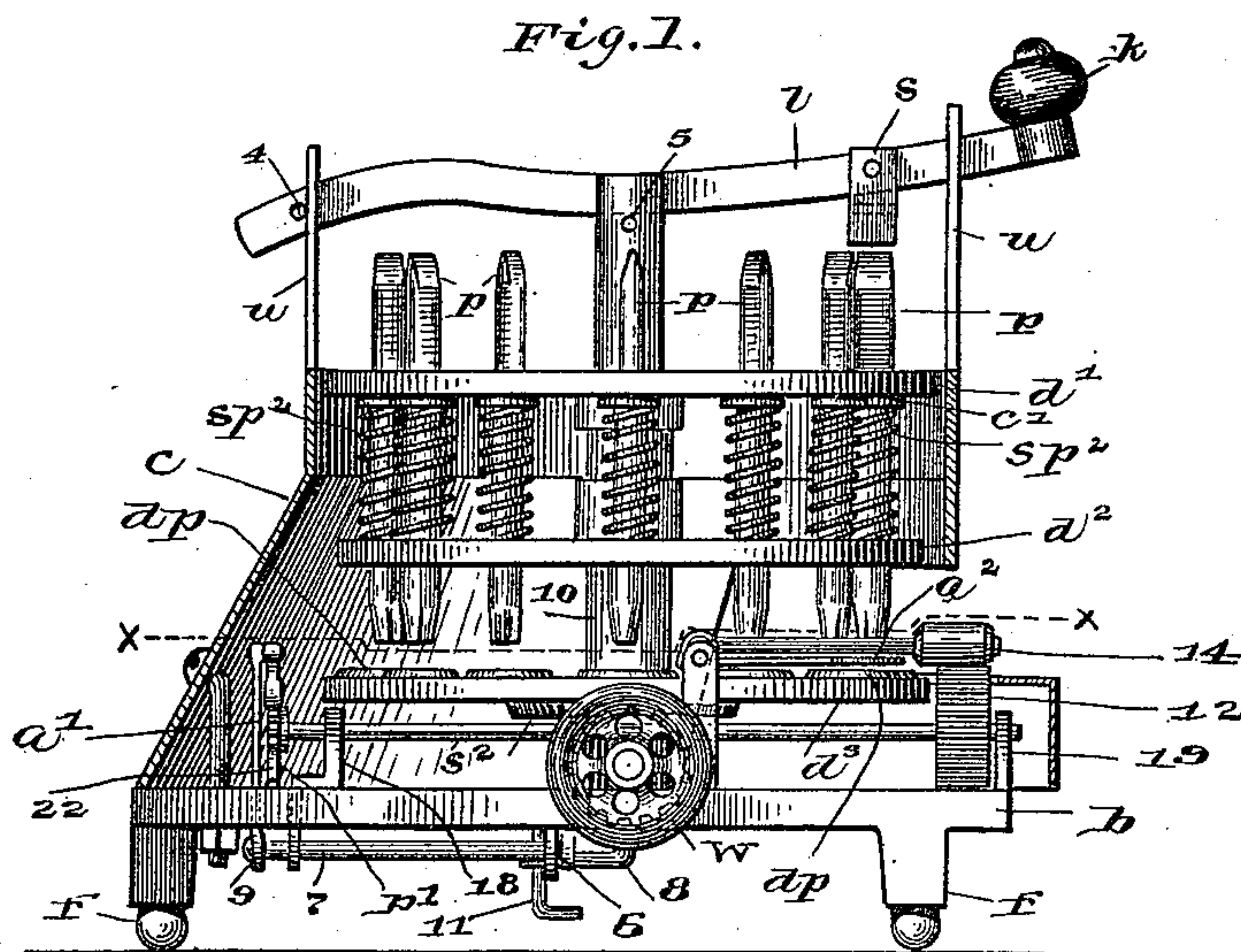
(No Model.)

2 Sheets—Sheet 1.

M. M. MANNER.  
CHECK PUNCH.

No. 438,695.

Patented Oct. 21, 1890.



WITNESSES:

H. D. Nealy.  
E. B. Griffith.

INVENTOR

Marion M. Manner.

BY

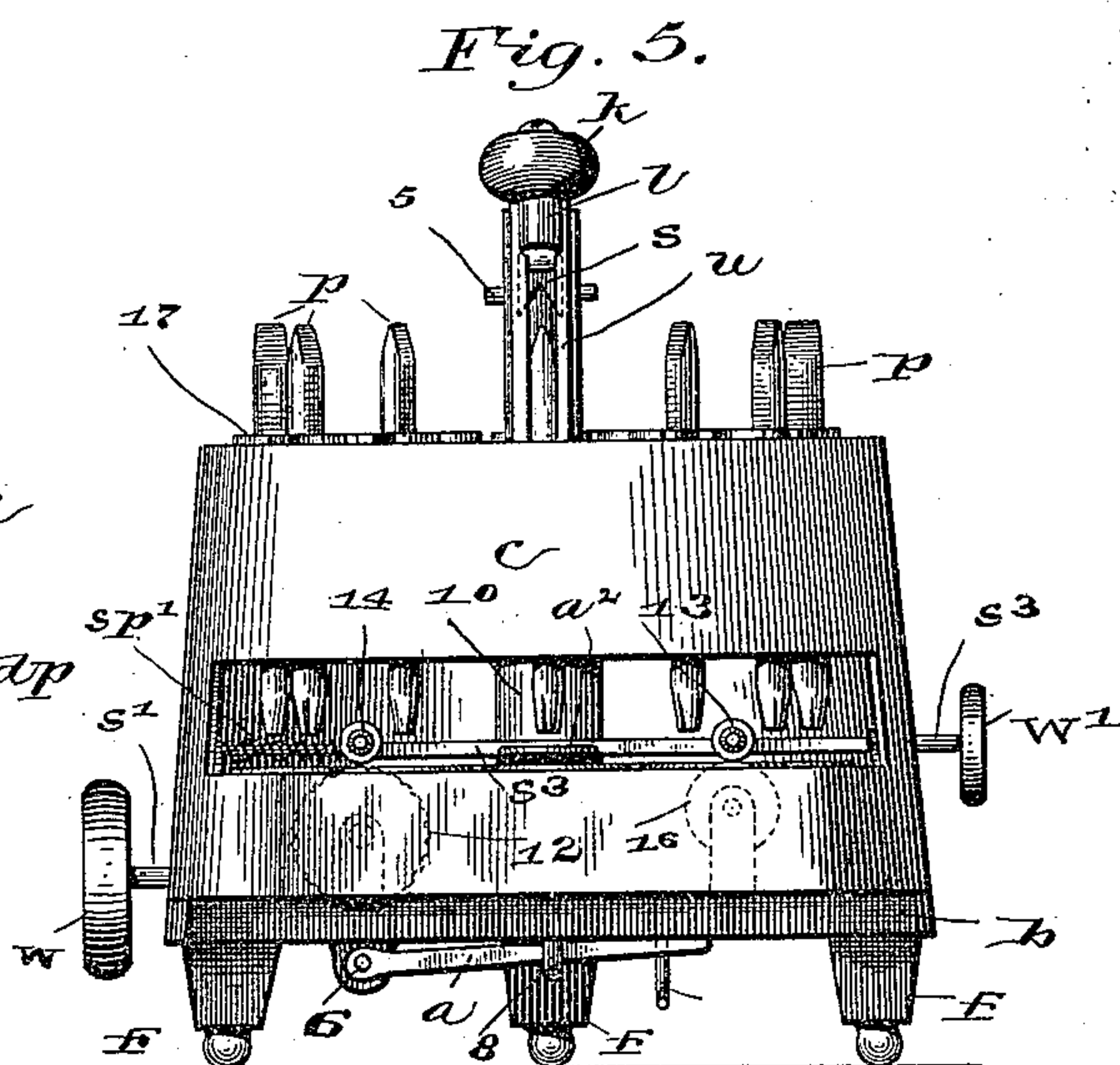
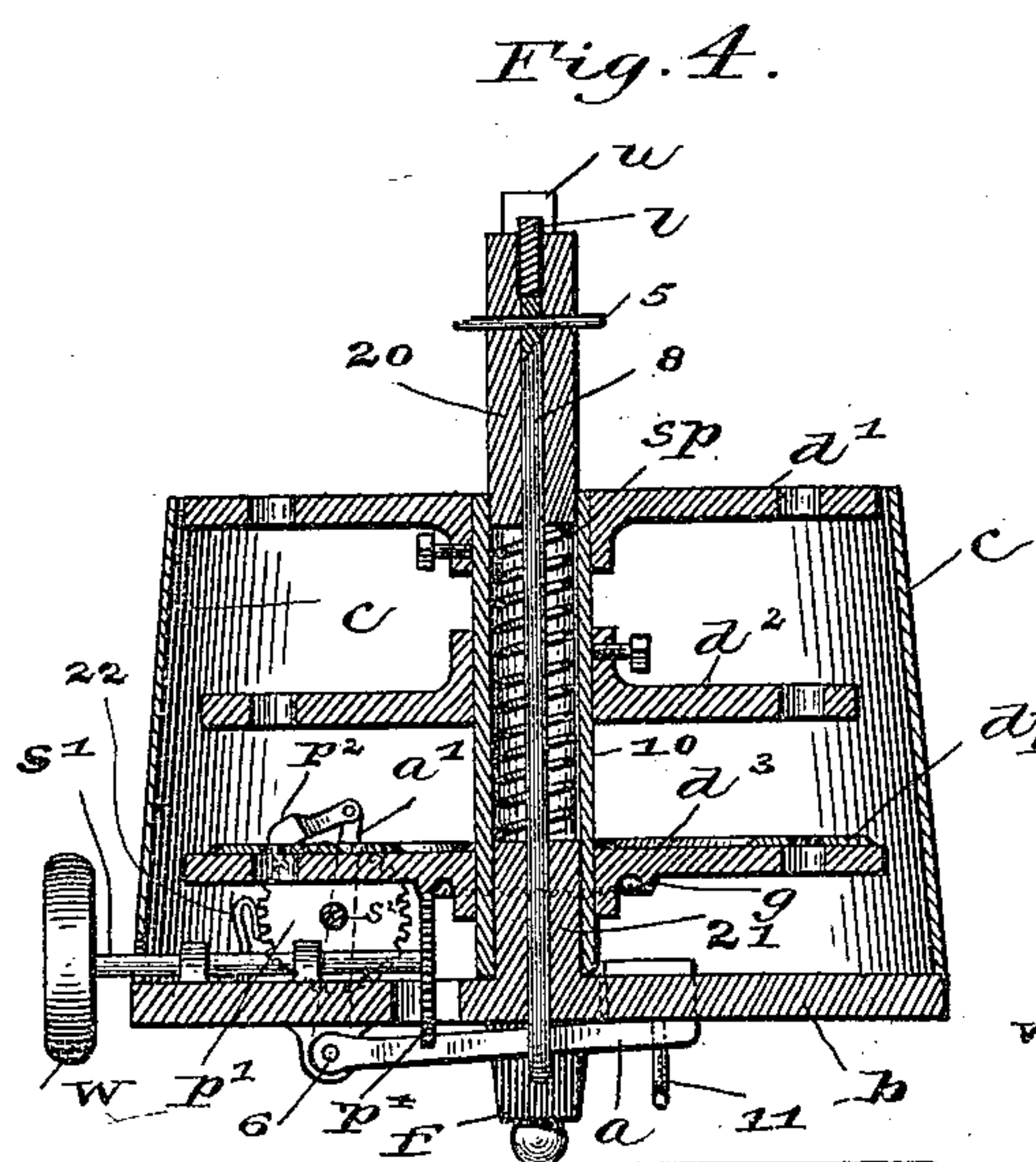
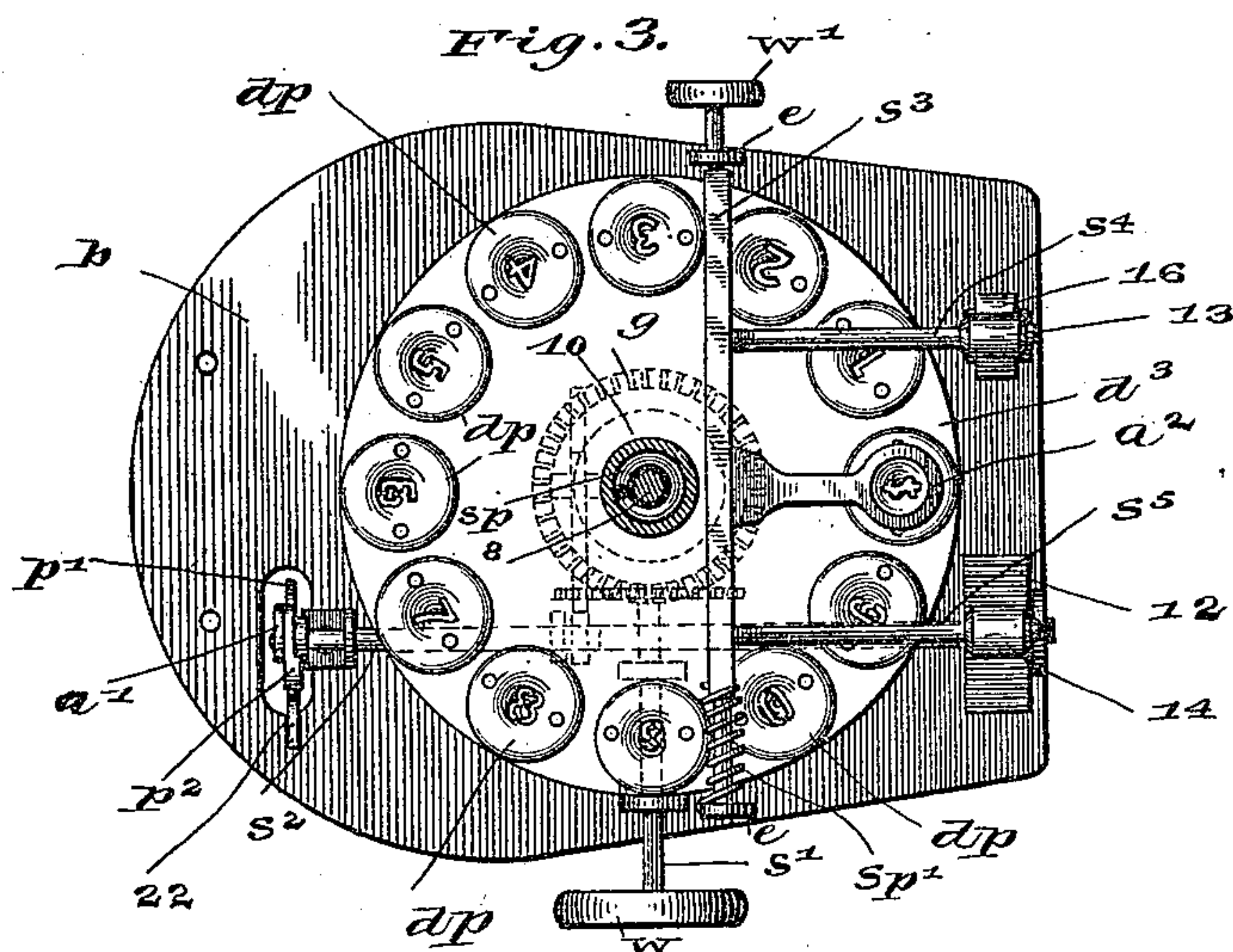
C. P. Jacobs.

ATTORNEY.

2 Sheets—Sheet 2.

No. 438,695.

Patented Oct. 21, 1890.



J. D. Neely  
E. B. Griffith.

INVENTOR  
Marion W. Manner,  
BY  
C. P. Jacobs.  
ATTORNEY.



# UNITED STATES PATENT OFFICE.

MARION M. MANNER, OF LEBANON, INDIANA.

## CHECK-PUNCH.

SPECIFICATION forming part of Letters Patent No. 438,695, dated October 21, 1890.

Application filed March 27, 1890. Serial No. 345,598. (No model.)

*To all whom it may concern:*

Be it known that I, MARION M. MANNER, of Lebanon, county of Boone, and State of Indiana, have invented certain new and useful  
5 Improvements in Check-Punches; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters and figures refer to like  
10 parts.

My invention relates to the construction of punching-machines, and will be understood from the following description.

In the drawings, Figure 1 is a side elevation, the case being in section. Fig. 2 is a top plan view, the cover partly broken away. Fig. 3 is a section on the line  $xx$ , Fig. 1. Fig. 4 is a section on the line  $yy$ , Fig. 2, the punches being removed for clearness of view. Fig. 5  
20 is a front elevation.

The machine is inclosed in a case  $c$  and rests upon a base  $b$ , having feet  $f$ , this base having a boss or central hub 21, which projects up a short distance, and a hollow spindle 10 fits over the same and incloses a coiled spring  $sp$ , and in the top of this spindle is inserted a stem 20, which is notched at the top to receive the central part of the lever 1, as shown in Fig. 1, a pin 5 passing transversely  
30 through this stem, and the rod 8 holding the latter in place. The outer end of this lever passes through a slot in an upright  $u$ , connected to the casing, a pin 4 being inserted at the end of the lever to retain it in position.  
35 The opposite end of the lever passes through a slot in a similar upright.

$s$  is a swinging stirrup pivoted to the lever and having a beveled notch adapted to fit over the corresponding beveled heads of  
40 punches  $p$ , so that whenever the punch is brought under the stirrup its notch will strike some part of the beveled head of the punch, and the parts will readily slip into proper relative position, making an equal bearing on both  
45 sides of the punch-head. These punches are arranged in a series of numbers representing the nine digits and a zero, and also the letter "c" for cents and the dollar-mark, as shown in at 17 in Fig. 2, and are carried in openings  
50 formed in the disks  $d'$   $d^2$ , springs being arranged about the central parts of the punches, these springs bearing against the lower disk

$d^2$  and plates or collars  $c'$ , mounted on the shank, so that the normal tension of the spring operates to keep the punch up in the position  
55 shown in Fig. 1, and when they are pressed down by means of the lever to cut the paper they will spring back to their proper position when the pressure upon the lever-knob is released. The notches on the indicating-plates  
60 17 allow the punches to pass through, and are squared, as are the punches, to prevent the latter from revolving in their bearings.

The disks  $d'$   $d^2$  are mounted on the central stem 10, as shown in Fig. 4, and locked in  
65 position by set-screws. Below these disks is a third disk  $d^3$ , which carries die-plates  $dp$ , having figures or letters corresponding with those of the punches. On the under side of the central part of this disk  $d^3$  is formed cir-  
70 cular gearings  $g$ , whose teeth engage with those of the pinion  $p^4$ , mounted on the end of the short shaft  $s'$ , which has a hand-wheel  $w$  on its outer end, by turning which the pinion  
75  $p^4$  on the opposite end is revolved and in turn revolves the stem 10 and the disks  $d'$   $d^2$   $d^3$  mounted thereon. This mechanism is operated by the left hand, while the punches are operated by means of the right hand upon  
80 the lever 1.

Through the bore of the stem 20, the spring  $sp$ , and the hub 21 passes a rod 8, whose upper end is fastened to the stem 20 by the pin 5. By the pressure of the operator's hand upon the knob  $k$  of the lever 1 this rod is de-  
85 pressed as the stem 20 descends, compressing the spring  $sp$ . The lower end of this rod 8 has a hook, in which rests an arm  $a$ , which is fastened at 6 to the end of the shaft 7, fast-  
90 ened at the other end at 9 to the upright arm  $a'$ , and to the upper end of this arm  $a'$  is connected a pawl  $p^2$ , which engages with the teeth of the pinion  $p'$ , mounted on the counter-shafts<sup>2</sup>, extending across the machine  
95 and journaled in lugs 18 and 19, resting upon the base, and upon this rod at its opposite end and near its bearings is mounted a feed-wheel 12, which is normally in contact with the pressure-roller 14, which is loosely mount-  
100 ed on the short arm or shaft  $s^5$ , which is rigidly connected at its inner end to the transverse shaft  $s^3$ , mounted in ears  $e$ , its outer end carrying a small hand-wheel  $w'$  and having a tension-spring  $sp'$ , mounted on its inner



end, whose normal pressure holds this shaft and the connected shafts  $s^4$   $s^5$ , with their pressure-rollers 13 and 14, in contact with the feed-wheel 12 and the friction-wheel 16, as shown in Fig. 3. This friction-wheel 16 is journaled in short lugs connected to the base and contacts with the pressure-roller 13 on the shaft  $s^4$ , which, like the shaft  $s^5$ , is connected to the transverse shaft  $s^3$ , which is operated, as before stated, by the hand-wheel  $w'$ . Connected to this transverse shaft  $s^3$  and between the shafts carrying the pressure-rollers 13 and 14 and on a line with such shafts is a short arm  $a^2$ , which has on its end a plate perforated to admit the passage of the punch and serves to remove or strip the paper from the punch while rising.

A small curved spring 22, connected to the base, is set to engage the teeth of the pinion  $p'$  and hold it from turning backward as the pawl  $p^2$  passes over its cogs.

The die-plates are connected to the lower disk by rivets or screws, and if screws are used they are preferably driven in from the under side.

The principal use of the case  $c$  is to confine the parts and prevent them from becoming dusty, while at the same time it makes a neat finish to the machine.

The mechanism operates as follows: The operator takes hold of the hand-wheel  $w'$  with his right hand, turns it backward, lifting the pressure-rollers 13 and 14, the shaft  $s^3$  swinging on its journals in the ears  $e$ , the arm  $a^2$  being also lifted by the same operation. The check or draft is then laid upon the feed-wheel 12 and the friction-wheel 16, the inner edge of the paper extending backward as far as the shaft  $s^3$ , if necessary. The hold upon the wheel  $w'$  is then released, and the tension of the spring  $sp'$ , aided by gravity, drops the pressure-roller, and the paper is then held firmly between these and the roller 16 and feed-roller 12 below and beneath the arm  $a$ . The operator then takes hold of wheel  $w$  with his left hand, turns it in either direction, and thus revolves the disks until the right figure is reached, bringing the punch in line with its corresponding die, or the disks may be revolved by taking hold of the top of the punches. He then presses with his right hand upon the knob  $k$  of the lever 1, pressing down the stem 20, the rod 8 compressing the spring  $sp$ , and forcing the punch upon the paper, which lies between the punch and the die-plate, upon the top of the disk  $d^3$ , making the perforation desired. By the same operation the arm  $a$  is dropped, throwing the upright arm  $a'$  backward, its pawl  $p^2$  passing easily over the notches of the pinion  $p'$ , and when the pressure upon the knob  $k$  is released the force of the spring  $sp$  throws up the rod 8 and its connected parts, pulling up the arm  $a$ , throwing forward the arm  $a'$ , the pawl  $p^2$  engaging with the teeth of the pinion  $p'$ , pushing it forward, thereby revolving it and the shaft  $s^2$  and feed-wheel 12, carrying forward

the paper for the next figure. The operator then by means of the wheel  $w$  again revolves the disks, bringing the next desired punch and die-plate in position beneath the stirrup  $s$  of the lever 1, then again depresses the knob  $k$ , carrying down the punch, cutting the proper figure or mark through the paper, and again throwing back the pawl in position for the next movement. The pressure being released, the pawl engages with its pinion, feeding the paper forward, and the operation is continued until the proper amount has been registered upon the check. For making any desired space between the characters, so as to clearly distinguish dollars from cents, the lever 1 is brought down between any two punches, thereby operating the feed mechanism and causing the paper to draw while the punches are inoperative.

At 11 is shown a stop fixed to the base  $b$ , which limits the dropping of the arm  $a$  when the knob  $k$  is depressed, and this secures a uniform movement of the pawl  $p^2$  upon the notches of the feed-wheel.

What I claim as my invention, and desire to secure by Letters Patent, is the following:

1. In a check-punching machine, the punches mounted in disks connected to a hollow rotary spindle mounted on the base-plate, a lower disk, also mounted on such spindle, having die-plates corresponding to the punches, the disks and spindle adapted to be rotated by a hand-wheel mounted on a shaft in bearings on the base-plate, such shaft having on its inner end a pinion which engages with a toothed gear on the under side of the lower disk, and a lever supported above the disks having a forked stirrup adapted to depress any punch that may be brought in line with it, such lever also operating a rod within the hollow spindle which operates the pawl-and-ratchet mechanism for rotating the feed-wheels, all combined substantially as described.

2. In a check-punching machine, a pair of disks provided with openings carrying spring-punches therein mounted on a hollow rotary spindle, a lower disk, also mounted on such spindle, having a series of die-plates corresponding to the punches, such spindle and disks adapted to be rotated by a hand-wheel on an axle with a pinion which engages with the gear on the under side of the lower disk, and a lever supported above the punches having pivoted to it a forked stirrup for engaging with the punch-heads, such lever also resting in a slot in a stem whose end rests in the hollow spindle upon a coiled spring, also in such spindle and around a rod, one end of such rod being connected to the stem and the other end bent to hold up the weighted arm operating the pinion on the shaft of the feed-wheel, all combined substantially as described.

3. In a check-punching machine, a pair of disks with openings carrying punches mounted on a hollow rotary spindle supported on a base-plate, and a lower disk, also mounted on



such spindle, and having a circular-toothed gear on its under side engaging with the pinion mounted on a shaft in bearings on the base-plate, such shaft carrying on its outer end a wheel which when turned rotates the hollow spindle and disks in either direction, all combined substantially as described.

4. In a check-punching machine, a base-plate carrying a hollow rotary spindle, disks connected to such spindle having openings carrying punches held in position by coiled springs between such disks, a lower disk having a circular gear on its under side engaging with a pinion connected with a hand-wheel, an independent punching-lever supported above the disks carrying a forked stirrup for pressing the heads of the punches, such lever also adapted to depress a stem which is partly within the hollow spindle and supported by a coiled spring, also in such spindle, said stem being connected to a rod passing through the spindle and automatically operating the feed-wheel through a pawl-and-ratchet mechanism, an independent perforated paper-holder, and pressure-wheels carried on short shafts and connected to an independent spring-shaft operated by a hand-wheel, all combined substantially as shown and described.

5. In a check-punching machine, a frame-work, a punching-lever carried above the same, a hollow vertical spindle carried on the base of such frame, a rod moving therein, a feed-wheel mounted on a shaft carrying a ratchet or pinion, a pawl engaging with such ratchet mounted on a frame connected to a shaft beneath the base-plate, and a weighted lever connected to such shaft and centrally supported by the rod moving in the hollow spindle, such rod being held up by the coiled spring inclosed in such spindle and adapted to be compressed by the movement of the punch-lever, all combined substantially as shown and described.

6. In a check-punching machine, a punching mechanism comprising a series of spring-controlled punches carried in revolving disks, a lever pivoted above such punches, such lever adapted to depress at its inner end a punch, and midway a stem connected through a pawl and ratchet to the feed mechanism, whereby the movement of the lever operates the punch

and feed-roller at one and the same time, substantially as shown and described.

7. In a check-punching machine, pressure-rollers mounted on short shafts connected to a transverse shaft mounted in lugs on the base-plate, and a perforated plate, also connected to such shaft between the pressure-rollers, adapted to hold the check in place when punched, such shaft having at one end a hand-wheel for raising such perforated plate and pressure-wheels, and at the other end a spring coiled around it having suitable bearings whose normal tension operates to press the plate and rollers against the check, all combined substantially as shown and described.

8. In a check-punching machine, a mechanism comprising a series of spring-controlled punches carried in revolving disks, such disks connected to a central hollow spindle, and a lever pivoted at its outer end to the frame-work above the punches, having a stirrup at its inner end for receiving the end of the punch, the center of such lever adapted to press against a stem and force it downward in a hollow spindle, carrying with it a rod which releases a gravity-catch operating the feed mechanism, whereby the latter is allowed to drop for rotating the feed-wheels, all combined substantially as shown and described.

9. In a check-punching machine, a feed-table supported in bearings on a base-plate, spring-controlled mechanism adapted to hold the paper in proper position between feed and pressure rollers, and the feed mechanism normally held up inoperative by a stirrup-rod carried in the central hollow spindle, such spindle located beneath a lever pivoted at one end to the frame-work and carrying a stirrup for receiving the top of the punch near its opposite end, whereby the pressure of the lever operates the punch at the rear and carries down the stirrup-rod, releasing the arm that controls the feed mechanism, whereby the latter becomes operative, all combined substantially as shown and described.

In witness whereof I have hereunto set my hand this 19th day of March, 1890.

MARION M. MANNER.

Witnesses:

C. P. JACOBS,  
H. D. NEALY.