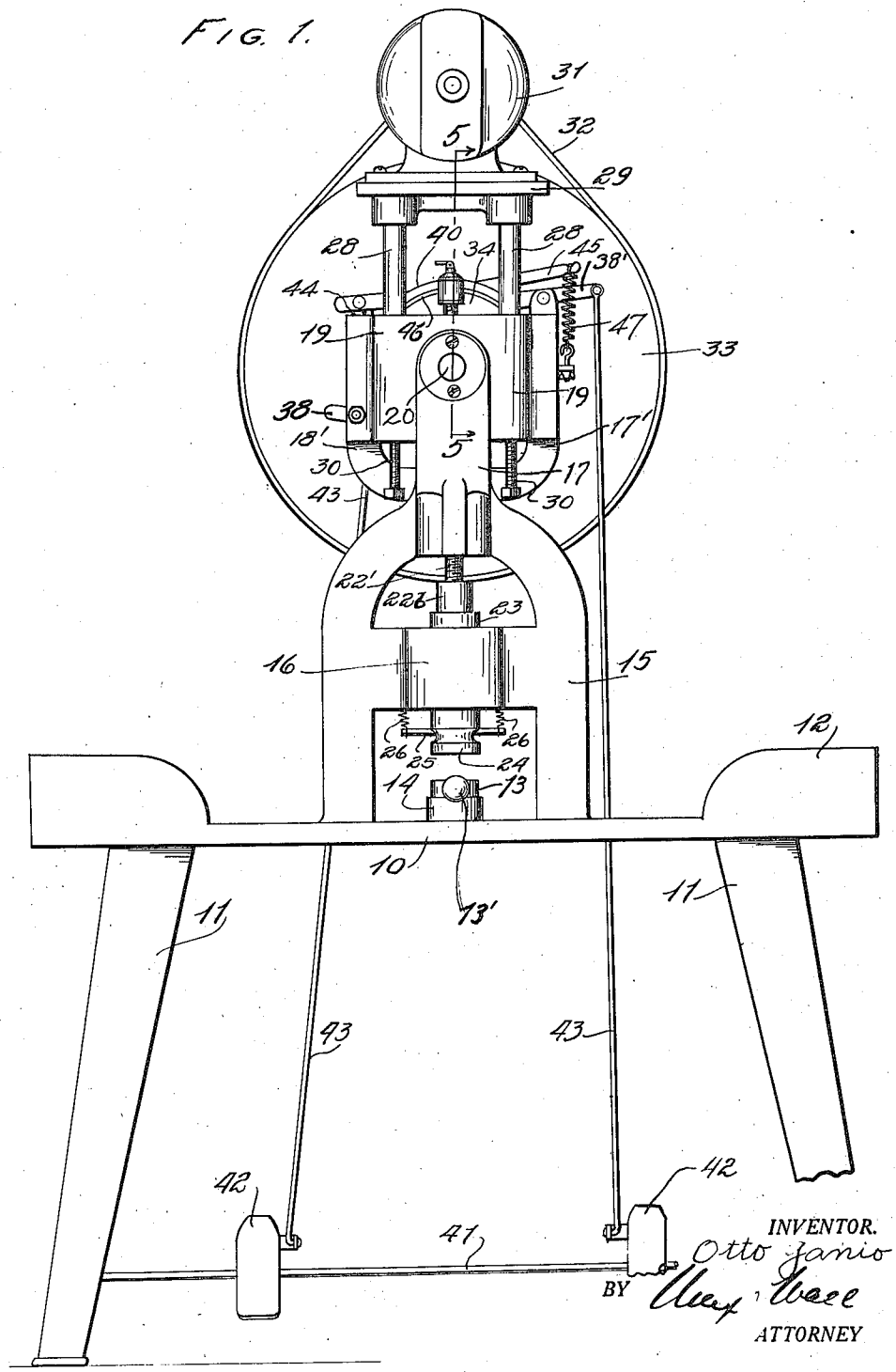
June 28, 1938. O. GANIO 2,122,316

PRESSING MACHINE

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FIG. 1.



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PRESSING MACHINE

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Fig. 2

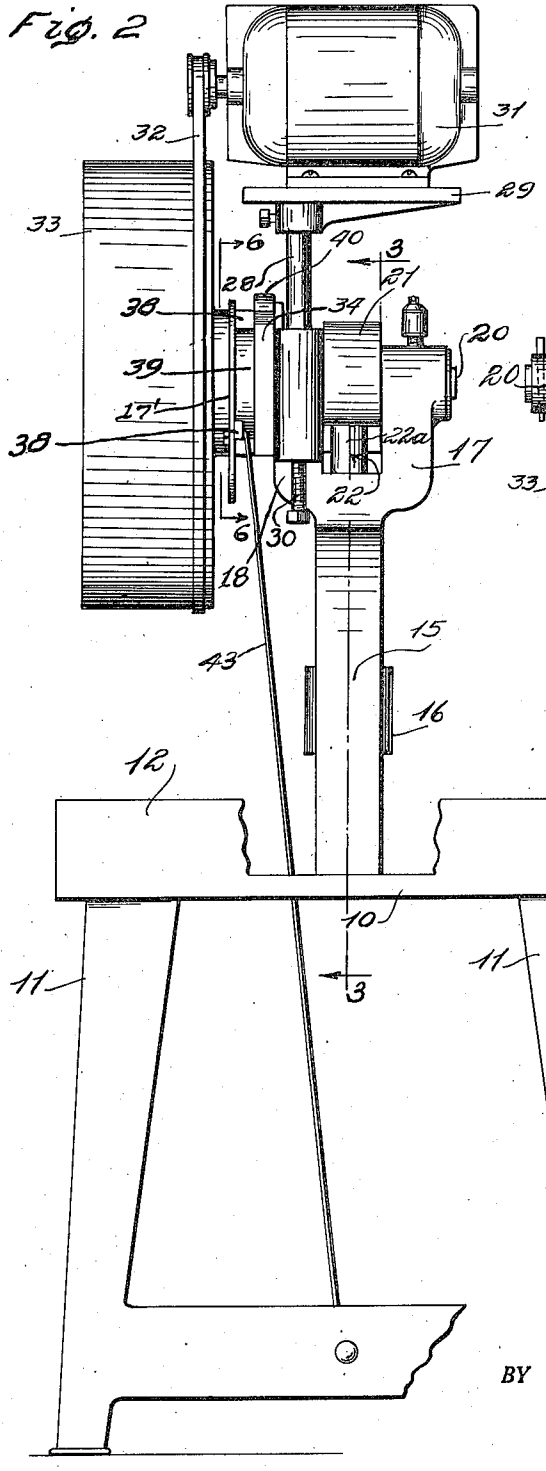


Fig. 5

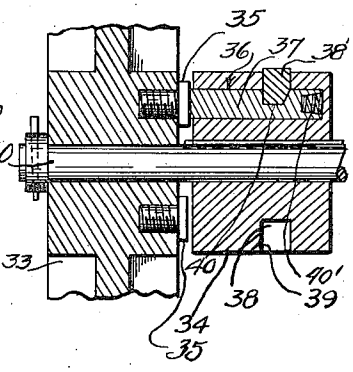
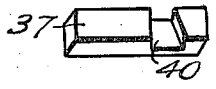


Fig. 7



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Fig. 3.

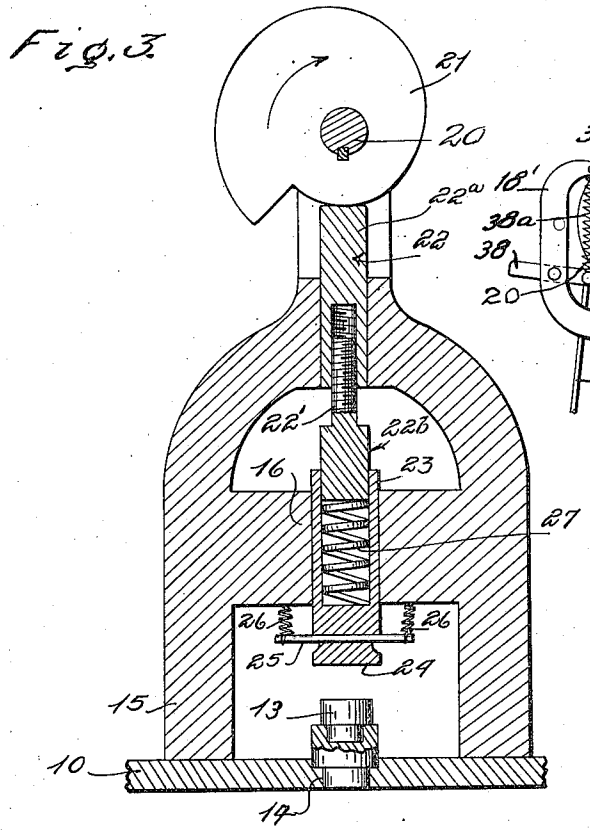


Fig. 6.

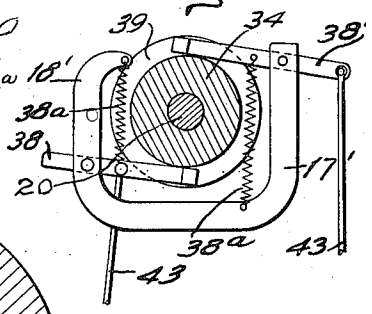
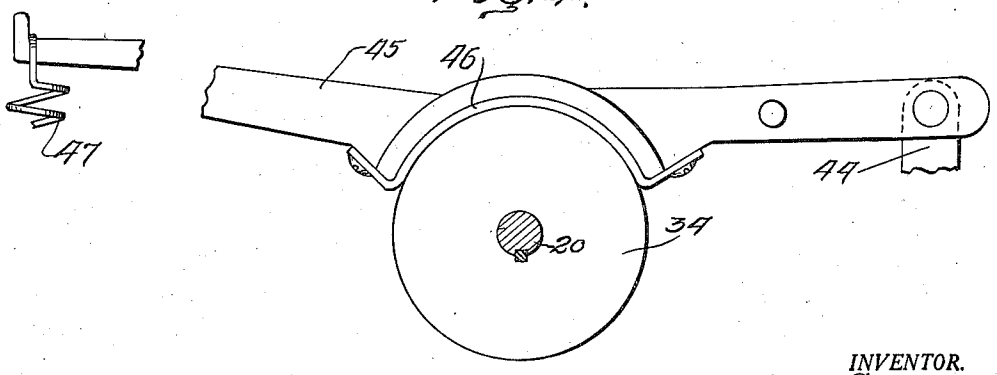


Fig. 4.



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UNITED STATES PATENT OFFICE

2,122,316

PRESSING MACHINE

Otto Ganio, New York, N. Y.

Application January 29, 1937, Serial No. 123,082

2 Claims. (Cl. 41—2)

This invention relates to stamping presses such as are used in the manufacture of artificial flowers.

One important object of the invention is to provide an improved general construction of presses for this purpose.

A second important object of the invention is to provide an improved arrangement of a resiliently yieldable plunger for such a press.

With the above and other objects in view the invention consists in general of certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings and particularly set forth in the claims.

In the accompanying drawings like characters of references indicate like parts in the several views, and:—

Figure 1 is a front elevation of the improved press.

Figure 2 is a side elevation thereof partly broken away.

Figure 3 is an enlarged detail section on the line 3—3 of Figure 2.

Figure 4 is an enlarged detail section showing the brake device.

Figure 5 is a detail section on the line 5—5 of Figure 1 and showing the clutch arrangement.

Figure 6 is a detail section on the line 6—6 of Figure 2.

Figure 7 is a perspective view of a dog used herein.

In general the invention as at present disclosed includes a table 10 mounted on legs 11 which preferably support this table in a horizontal position. Surrounding the sides and portions of the front and rear of the table 10 is a fence 12. Centrally of the table 10 there is shown an upper die 13 having a handle 13' and a lower die 14, the upper die being removably fitted in the lower die. These dies 13 and 14 are so shaped and engraved as to form a leaf or flower element such as a sepal or petal.

Straddling the opening 13 is an inverted U-shaped frame 15 across which extends a cross-bar 16 preferably integral with the legs of the frame 15. The upper end of the frame 15 is forked to provide an arm 17 and an arm 18 which latter is provided at its sides with sleeves 19. Journalled in these arms is a shaft 20 on which, between the arms 17 and 18 is mounted a cam 21. This cam 21 is fixed on the shaft 20 and engages the upper end of a plunger 22 which slidably fits in a suitable guide opening in the upper end of the frame 15. Slidably mounted in the cross-bar 16 is a sleeve 23 closed at its bottom and provided on its lower end with an upper die presser head or face 24. This sleeve and die head are normally urged to upward position above the dies 13 and 14 by means of a cross-bar or lifting bar 25 engaging the lower portion of the sleeve and suspended from the cross-bar 16 by springs 26. The plunger 22 slides in the upper end of the sleeve 23 and a spring 27 is interposed between the lower end of the plunger and the bottom of the sleeve. By this means there is a resilient pressure connection between the plunger 22 and sleeve 23.

The plunger 22 has upper and lower parts 22*a* and 22*b* adjustably connected by a screw 22' formed in the part 22*b* so that the effective length of this plunger may be controlled and the extent of spring pressure on the upper die 24 may be regulated thereby.

Through the sleeves 19 extend supporting rods or legs 28 which support a platform 29 on their upper ends. The vertical position of this platform is regulated by adjusting screws 30 threaded into the lower ends of the sleeves 19 and engaging against the lower ends of the legs 28. On the platform 29 is mounted the driving motor 31 which is connected by a belt 32 with a fly-wheel 33 rotatably mounted on the shaft 20. On the shaft 20 is provided a clutch member 34.

The fly-wheel is provided, on the side facing the clutch member, with a pair of stop lugs 35 positioned on the face of the fly-wheel hub at diametrically opposite points. The member 34 and the cam 21 are both keyed to the shaft 20. The member 34 is provided with a bore 36 wherein is mounted a slidable dog 37 projectable into the path of the stop lugs 35. Pivotally supported from the arm 18 is a yoke having arms 17' and 18' carrying levers 38 and 38' which are positioned in a groove 39 formed in the clutch member 34. The dog 37 is provided with a notch 40 having one side bevelled as shown in Figure 5 and the levers 38 and 38' have correspondingly bevelled faces which co-operate with the bevelled face of the notch so that when a lever is held by its spring 38*a* to fit in said groove 39 it retracts the dog and thus disengages the clutch from the fly-wheel 33 to allow the plunger to rest. When, however, the lever is tilted in the opposite direction the dog 37 will be projected by the spring 40' so that it will be engaged by one of the lugs or studs 35 and the fly-wheel 33 will thus be clutched to the shaft 20 and operate the cam 21. Mounted at the bottom of the legs 11 is a cross rod 41 whereon are tiltably mounted a pair of pedals 42 which are connected by rods 43 with opposite ends of the lever 38 and 38'.

Mounted on a bracket **44** attached to the top of the member **19** is a brake lever **45** which is provided with a lining strap **46** fitting on a cylindrical portion of the clutch member **34** and this strap is constantly urged against the clutch member by a spring **47** having one end engaging the free end of the lever and its other end pivotally anchored to a fixed part such as the bracket **44**.

In operation, the fabric to form the part of artificial foliage is placed in the lower die and the upper die applied. While the motor is running, the proper pedal **42** is depressed to release the dog **37** and apply the clutch. This clutches the cam **21** to the fly-wheel **33** and the plunger **22** descends, carrying with it the sleeve **23** and upper die head **24** so that the upper die head **24** is carried downward, the springs **26** being only sufficiently strong to support the upper die head when the plunger is raised. This die head engages the upper die and compresses the work between the dies and, upon depression of the other pedal **42**, the dog **37**, in turning with the clutch member **34**, has its notch **40** brought into engagement with the bevelled part of the lever **38** which retracts the dog **37** to release the clutch and the upper die head **24** ceases to move.

When it is desired to cause the upper die head **24** to come down and rest in pressing position only the lever **38'** is actuated by its pedal **42**. This permits the cam **21** to make half a revolution whereupon the lever **38** acts to free the dog **37** and thus disengage the clutch. If, however, it is desired to allow a complete revolution of the cam **21** the lever **38'** is first actuated and released and then the lever **38** is actuated so that the clutch is engaged during an entire revolution. Again, if it is desired to make repeated strokes of the upper die head **24** both levers **38** and **38'** are tilted by their pedals **42** and so held whereupon the clutch will remain in engaged position until one lever **38** or **38'** is released.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified.

It is obvious that changes may be made in the form and construction of the invention without departing from the material principles involved. It is not therefore desired to confine the invention to the exact form herein shown and described but it is desired to include all such forms as come within the scope claimed.

What is claimed as new, is:—

1. In a stamping press for forming artificial flowers, a fixedly positioned lower die support, a yoke carried thereby, a vertically movable upper die head in said yoke and axially aligned with the lower die support and including a sleeve closed at its bottom and having a die pressing face at its lower end, a plunger extending into said sleeve, a spring interposed between the closed bottom of said sleeve and said plunger, cam means engaging the top of said plunger to force the plunger downwardly and additional spring means connecting said sleeve to said yoke member for normally holding said sleeve in raised position.

2. In a stamping press for forming artificial flowers, a fixedly positioned lower die support, a yoke carried thereby, a vertically movable upper die head in said yoke and axially aligned with the lower die support and including a sleeve closed at its bottom and having a die pressing face at its lower end, a plunger extending into said sleeve, a spring interposed between the closed bottom of said sleeve and said plunger, cam means engaging the top of said plunger to force the plunger downwardly and a cross bar connected adjacent the lower end of said sleeve and springs connecting the ends of said cross bar to said yoke member for normally holding said sleeve in raised position.

OTTO GANIO.