

(No Model.)

S. KRIBS.
PRESS FOR MAKING SCREW INSULATORS.

No. 542,565.

Patented July 9, 1895.

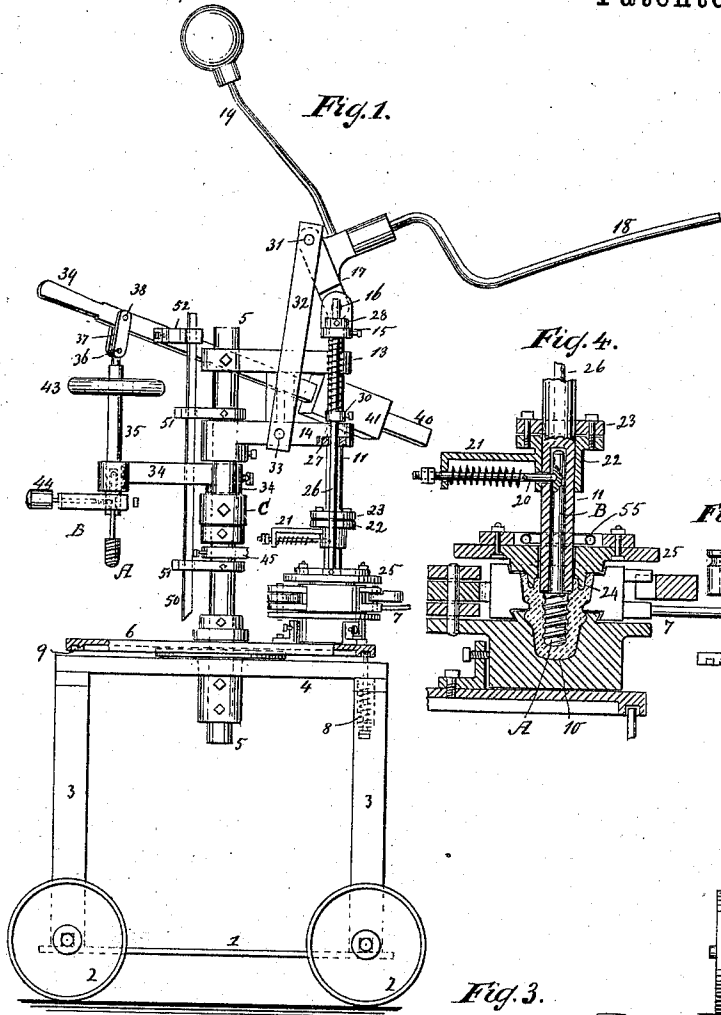


Fig. 1.

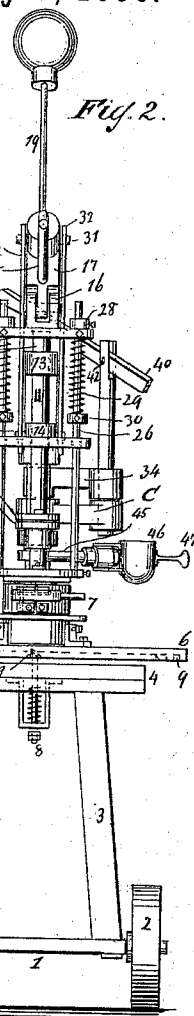


Fig. 2.

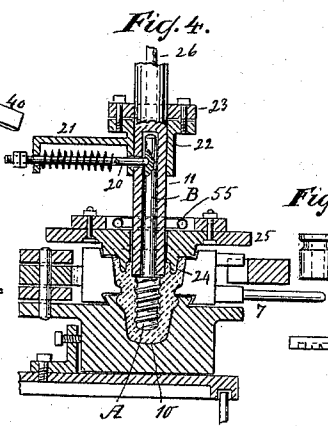


Fig. 4.

Fig. 5.

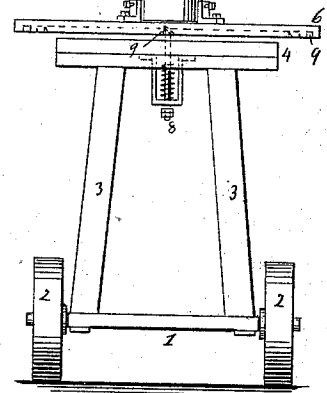


Fig. 3.

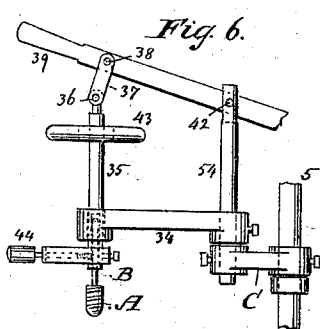


Fig. 6.

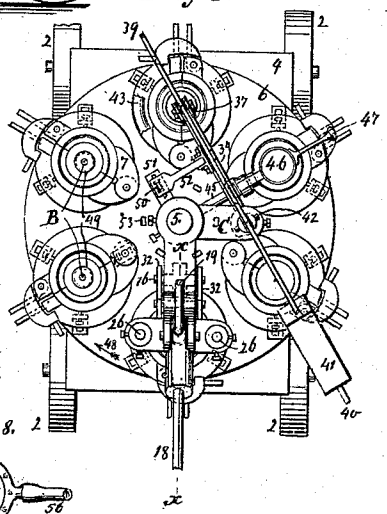
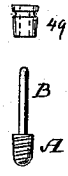


Fig. 8.

Fig. 7.



WITNESSES:

E. Wolff
Char. E. Lenzger

INVENTOR:

Seraphin Kribs.

BY

Hauß & Hauß
ATTORNEYS.

UNITED STATES PATENT OFFICE.

SERAPHIN KRIBS, OF BROOKLYN, ASSIGNOR TO WILLIAM BROOKFIELD,
OF NEW YORK, N. Y.

PRESS FOR MAKING SCREW-INSULATORS.

SPECIFICATION forming part of Letters Patent No. 542,565, dated July 9, 1895.

Application filed July 5, 1894. Serial No. 516,642. (No model.)

To all whom it may concern:

Be it known that I, SERAPHIN KRIBS, a citizen of Germany, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Presses for Making Screw-Insulators, of which the following is a specification.

The object of this invention is to provide a press by which the operation of forming insulators for telegraph-lines and the like can be rapidly and accurately carried on; and the invention resides in the novel features of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a sectional side elevation of the press. Fig. 2 is a front elevation of Fig. 1. Fig. 3 is a plan view of Fig. 1. Fig. 4 is a section along $x x$, Fig. 3. Fig. 5 shows a filling-piece. Fig. 6 is a detail view of a spindle. Fig. 7 is a detail view of a screw-plunger and a filling-piece ready to be slipped onto the screw-plunger. Fig. 8 is a detail view of an air-blast or cooling-tube.

The base 1 by being mounted on wheels 2 enables the device to be readily moved to any desired point. From the base 1 rise legs 3, carrying a top plate 4, in which is fixed a standard 5. A platform or support 6, carrying a suitable number of molds 7, is rotatable about standard 5. This support 6 when rotated a sufficient distance to bring one or another of the molds 7 into operative position can be locked in position by a spring catch or detent 8 engaging one or another of the recesses or shoulders 9 in the support 6.

When a mold is filled with the molten glass or material for the insulator 10, Fig. 4, a screw-plunger is forced into such mass to form a screw-thread therein. Said screw-plunger is shown as consisting of a screw-thread A and stem B, and the stem B can be detachably connected to or seated in the hollow or tubular end of the actuating-rod 11, guided in arms 13 and 14, extending from standard 5. To this actuating-rod is secured a cross-head 15, jointed at 16 to an arm 17, extending from lever 18 and 19. The actuation of lever 18 and 19 with arm 17 will actuate cross-head 15 with actuating-rod 11.

The stem B of screw-plunger A B can be detachably connected to actuating-rod 11 by

a spring-pressed catch or pin 20, guided in arm 21, extending from collar 22, bolted or secured to shoulder 23 on rod 11. When the rod 11 moves toward a mold 7 it carries with it the screw-plunger A B, so as to force the latter into the mass 10, while on the return stroke of rod 11 the screw-plunger is to be left inserted in the mass, either by the catch 20 being withdrawn by hand or by the engaging end of the catch 20 being formed at such an angle or incline that on the movement of rod 11 away from mold 7 the catch will slip or automatically move out of engagement with the tube B.

The former 24, with follower 25, moves with the actuating-rod 11 toward and from the mold 7. The former and follower are secured to rods 26, sliding in arm 27, extending from arm 14 and extending loosely through cross-head 15, being prevented from falling or passing out of engagement with the latter by collars 28, secured to the rods 26. The cross-head 15, when moving toward a mold, presses on springs 29, coiled about the rods 26 and acting against collars 30, fastened to said rods, so that the motion of the cross-head 15 toward a mold will move or hold the former and follower toward such mold by a yielding or spring pressure.

The arm 19 of the lever 18 and 19 is weighted and it is noticed that the movement of arm 18 against the action of the weighted arm 19 will move the rod 11, with the former 24 and follower 25, toward a mold, while the weighted arm 19, on the release of arm 18, can be made to automatically return the rod 11 with the former and follower. The lever 18 and 19 is fulcrumed at 31 to links or rods 32, jointed at 33 to arm 14.

From standard 5 extends an arm C, Fig. 6, to which is secured a rod 54, which carries an arm 34, in which is guided the sliding and rotary rod or spindle 35, jointed at 36 to link 37, which is jointed at 38 to lever 39 and 40, having its arm 40 weighted, as at 41, and having its fulcrum 42, Fig. 3, on rod 54, carried by arm C, extending from standard 5. The spindle is suspended to link 37 in any suitable well-known way to be rotary thereon, a hand-wheel 43 enabling the spindle to be rotated. Said spindle has its lower end hollowed, so as to be capable of receiving the

stem B of a screw-plunger A B. A screw or fastening 44 enables the stem B to be secured to spindle 35.

From standard 5 extends an arm 45, on which a filling vessel or measure 46 is rotatably mounted, so that it can be tilted or upset by handle 47. When the support 6 is locked by detent 8, a mold 7 is under the measure 46, so that on tilting the latter the molten matter from the measure will run into the mold, the measure being conveniently calculated to hold such a quantity of material as is required to properly supply the mold.

The operation of the device is as follows: Supposing the device to be at rest, with the rod 11 and spindle 35 raised and the support 6, locked by detent 8, engaging one of the recesses 9, a mold 7 is then under the measure 46 and can be charged from the latter. The support 6 is then rotated in the direction of arrow 48, Fig. 3, so as to bring the charged mold under the actuating-rod 11, whereupon the support 6 is again locked and the rod 11 is then actuated by lever 18 and 19 to force the screw-plunger into the mass in the mold, said screw-plunger, as already seen, remaining in the mass on the return of the rod 11. On the stem B of the screw-plunger is then slipped a filling-piece 49 as soon as the stem B has passed sufficiently far from under rod 11 to be accessible, said filling-piece being intended to prevent the soft mass from sinking back against stem B, while the mold with the screw-plunger therein is carried toward the spindle 35 by the continued rotation of support 6 in the direction of arrow 48. This filling-piece 49 is withdrawn or removed before the mold comes under spindle 35. When the mold arrives under the spindle 35, the table 6 is again locked and lever 39 and 40 is then actuated to move the spindle 35 toward the mold, so that the spindle 35 slips over the stem B of the screw-plunger sticking in said mold. The stem B is then secured to spindle 35 by the screw or fastening 44, so that on the spindle 35 being rotated in the proper direction the screw-plunger turning with the spindle will screw out of the mass or insulator in the mold, said mass having become sufficiently set to retain its form with the screw-thread formed by the screw-plunger. On the mold being now opened the insulator can be removed therefrom and the mold can be again charged from measure 46.

By having a series of molds on support 6, which molds successively are charged by the measure 46 and successively provided with screw-plungers by rod 11, which screw-plungers are successively withdrawn or unscrewed by spindle 35, the operation of forming the insulators can be rapidly carried on, while the uniform charging of the molds by measure 46 will enable accurate work to be attained.

In addition to lock 8 the support 6 may be locked on the movement of lever-arm 39 toward said support by a detent rod or slide 50, guided in arms 51, extending from stand-

ard 5 and connected to arm 52, extending from lever-arm 39. On the movement of lever-arm 39 toward support 6 the detent or lock 50 engages one of the recesses or shoulders 53, Fig. 3, in table 6, so as to hold or lock the latter until the lever-arm 39 returns.

The actuating-rod 11 and spindle 35, while supported by the same standard 5, are independent of one another, so that each of these parts can be respectively operated at such time and with such rapidity as required.

To prevent overheating of the follower and plunger a tubular ring 55, Figs. 4 and 8, is suitably applied about the plunger, which ring 55, receiving air or a cooling-blast through conduit or hose 56, will eject said air through suitable jet-openings in tube 55, so that this air-blast will cool or prevent overheating.

The ring 55 is in the form of a tube and is mounted on the follower and surrounds the plunger, whereby the jet or blast tube is always in correct position to operate upon the plunger and follower, in contradistinction to being arranged in such manner that it only operates on the plunger at certain points.

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

1. An actuating rod provided with a detachable screw plunger, combined with a rotary spindle adapted to engage the screw plunger, and a movable mold adapted to travel from the actuating rod to the spindle substantially as described.

2. An actuating rod provided with a detachable screw plunger, combined with a rotary spindle adapted to engage the screw plunger, a mold, and a movable support for the mold substantially as described.

3. An actuating rod provided with a detachable screw plunger, combined with a rotary spindle adapted to engage the screw plunger, a mold, a movable support for the mold, and a lock for holding the support with the mold in operative position relatively to the actuating rod and spindle substantially as described.

4. An actuating rod provided with a detachable screw plunger, combined with a rotary spindle adapted to engage the screw plunger, a mold, a movable support for the mold, and a lock or detent 50 actuated by the spindle and made to engage the movable support substantially as described.

5. An actuating rod provided with a detachable screw plunger, combined with a rotary spindle adapted to engage the screw plunger, a filling piece 49 adapted to be placed on the screw plunger, and a movable mold adapted to travel from the actuating rod to the spindle substantially as described.

6. An actuating rod provided with a detachable screw plunger, combined with a rotary spindle adapted to engage the screw plunger, and a movable mold adapted to travel from the actuating rod to the spindle, said actuating rod and spindle being independent of one another substantially as described.

7. An actuating rod provided with a detach-
able screw plunger, combined with a rotary
spindle adapted to engage the screw plunger,
a movable mold adapted to travel from the
5 actuating rod to the spindle, and independ-
ent actuating levers for the rod and the spin-
dle respectively substantially as described.

8. An actuating rod provided with a detach-
able screw plunger, combined with a rotary
10 spindle adapted to engage the screw plunger,
a mold, a movable support for the mold, and
a standard for supporting the actuating rod
and spindle and about which the support is
movable substantially as described.

15 9. An actuating rod provided with a detach-
able screw plunger, combined with a rotary
spindle adapted to engage the screw plunger,

a mold, a movable support for the mold, and
a measure secured above the support and
adapted to charge the mold substantially as 20
described.

10. A screw plunger combined with a fol-
lower and actuating mechanism substantially
as described for the plunger and follower, and
a jet extending around the plunger and sup- 25
ported by and moving with the follower, sub-
stantially as described.

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

SERAPHIN KRIBS.

Witnesses:

WM. C. HAUFF,

E. F. KASTENHUBER.

DISCLAIMER.

542,565.—*Seraphin Kribs*, Brooklyn, N. Y. PRESS FOR MAKING SCREW-INSULATORS.
Patent dated July 9, 1895. Disclaimer filed February 25, 1910, by the executors
of the assignee, *William Brookfield*, deceased.

“Do hereby disclaim—

“Any combination of parts or devices in which there is no movable support for the
molds or equivalent thereof, except such special combinations as are covered by claims
5 and 10 of said patent, and, therefore, do hereby disclaim claims 1, 6, and 7 of said
Letters Patent No. 542,565 upon the assumption and understanding that said claims 1,
6, and 7 are to be given the said broad construction above stated, that is to say, are to
be construed broadly enough to include a combination of parts or devices in which
there is no movable support for the molds or equivalent thereof. But your petitioners
expressly declare that it is not their intention hereby to disclaim, and they do not
hereby disclaim, the subject-matter of claim 2 of the said Letters Patent No. 542,565,
as construed by said court, nor any machine or combination of parts which would come
within the scope of said claim 2, as construed by said court, or be covered thereby.”—
[*Official Gazette*, March 8, 1910.]