

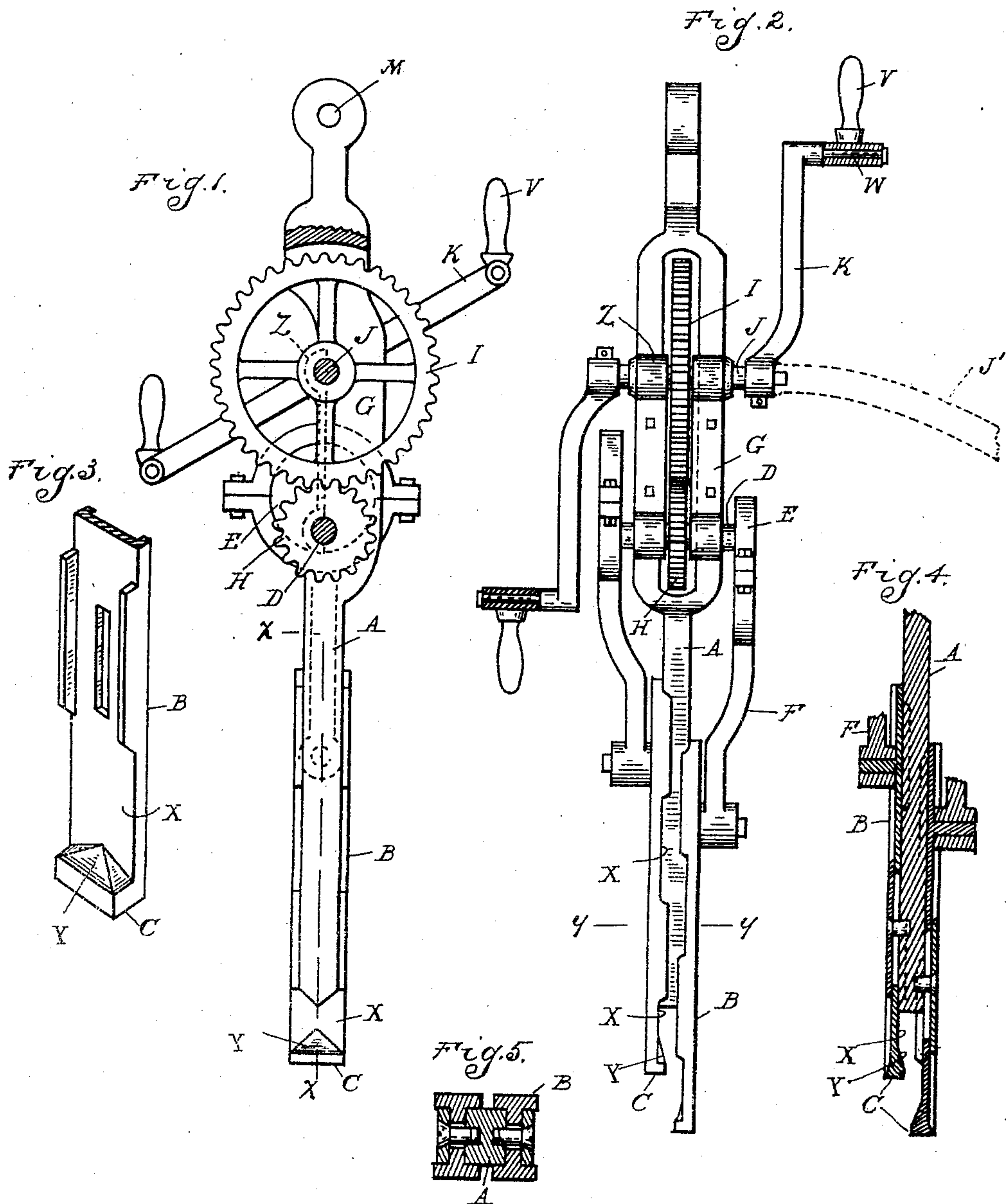
No. 785,755.

PATENTED MAR. 28, 1905.

L. P. NORMANDIN.
TAMPER.

APPLICATION FILED MAR. 28, 1904.

2 SHEETS--SHEET 1.



Witnesses
Jas. P. Barry.
H. B. Smith.

Inventor
Levi P. Normandin
By James Whitmore
att'y.

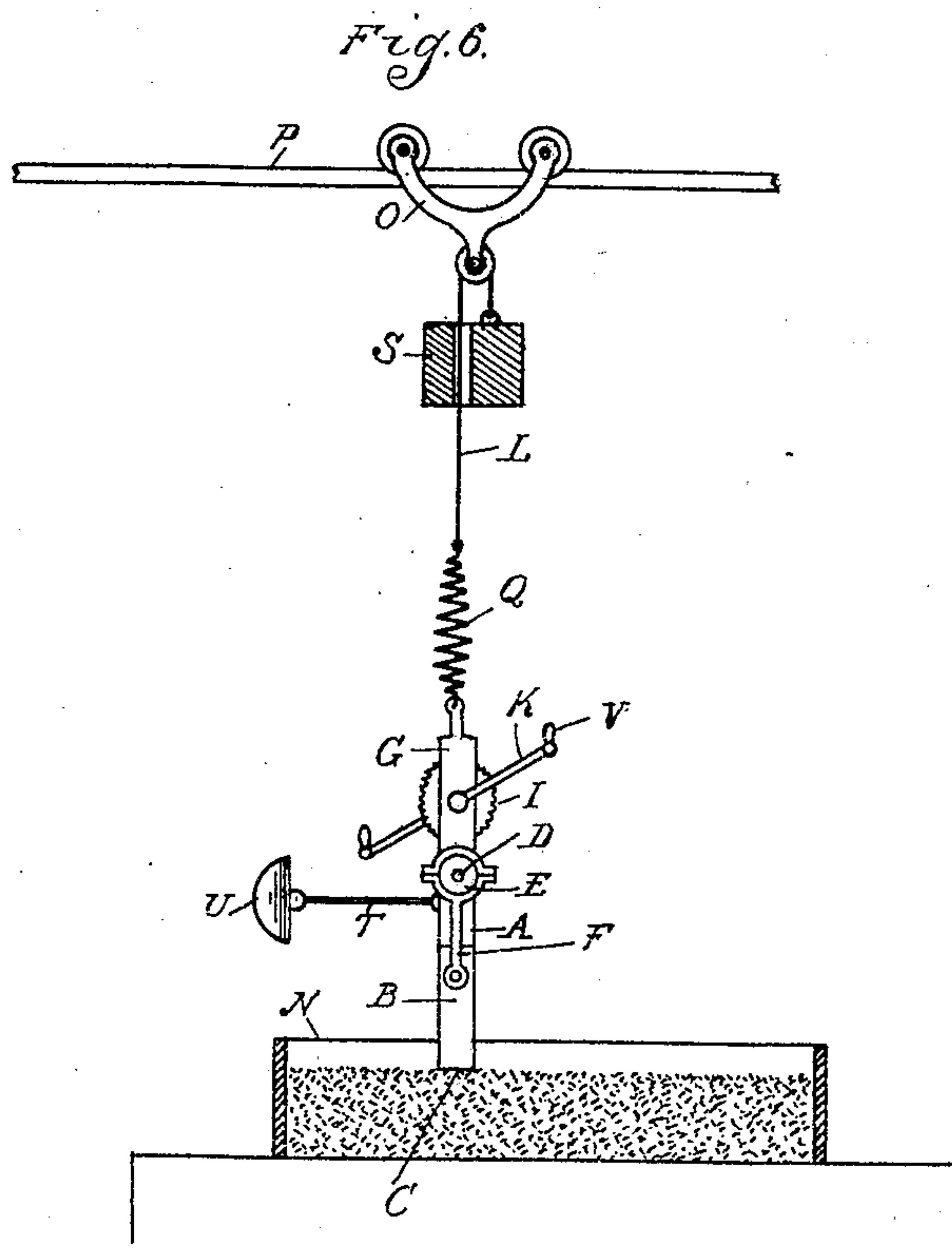
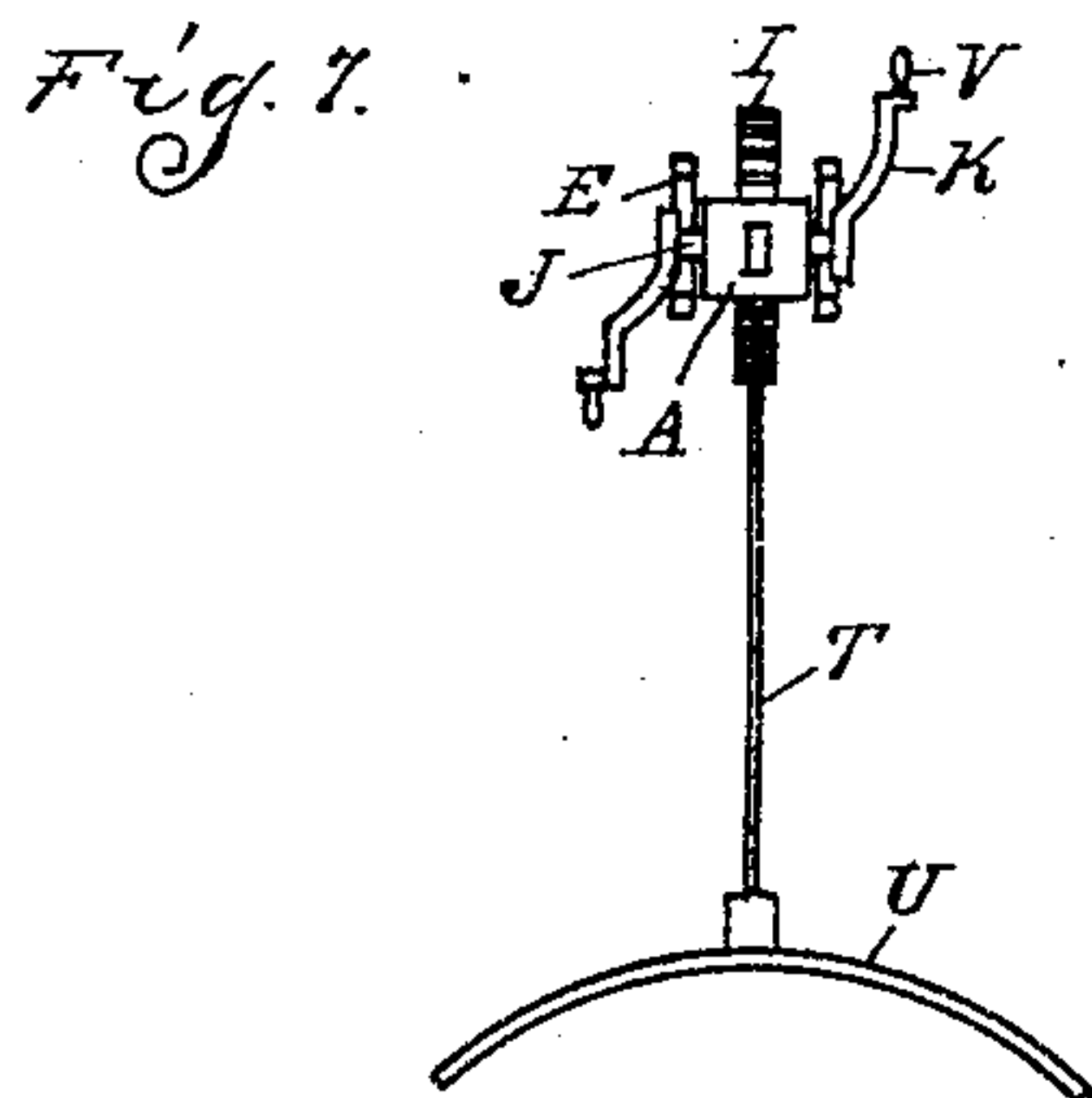
No. 785,755.

PATENTED MAR. 28, 1905.

L. P. NORMANDIN.
TAMPER.

APPLICATION FILED MAR. 28, 1904.

2 SHEETS—SHEET 2.



Witnesses
Jas. P. Barry
H. L. Smith

Inventor
Leri P. Normandin
By James Whittemore
Atty

UNITED STATES PATENT OFFICE.

LEVI P. NORMANDIN, OF JACKSON, MICHIGAN, ASSIGNOR OF THREE-FOURTHS TO WILLIAM F. COWHAM, OF JACKSON, MICHIGAN.

TAMPER.

SPECIFICATION forming part of Letters Patent No. 785,755, dated March 28, 1905.

Application filed March 28, 1904. Serial No. 200,309.

To all whom it may concern:

Be it known that I, LEVI P. NORMANDIN, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Tampers, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to tampers, being more specially designed for use in compacting plastic material in molds, as in the manufacture of building-blocks from artificial stone.

It is the object of the invention to obtain a comparatively small portable tool which may be easily operated and which quickly and effectively performs its work. The invention consists in the construction as hereinafter set forth.

In the drawings, Figure 1 is a vertical longitudinal section through the tool. Fig. 2 is an elevation at right angles to the plane of section in Fig. 1. Fig. 3 is a perspective view of a portion of one of the reciprocatory tamping-feet. Fig. 4 is a longitudinal section on the line $x x$, Fig. 1. Fig. 5 is a cross-section on line $y y$, Fig. 2. Fig. 6 is an elevation illustrating the device in use, and Fig. 7 is a plan view thereof.

A is a suitable bar or frame.

B represents tamping members which are slidably secured to the lower portion of the bar A and are provided at their lower ends with the feet C.

D is a revoluble shaft journaled in the bar A, which is provided with means, such as the eccentrics E, for reciprocating links F, connecting with the tamping members B.

As shown, the bar A is bifurcated above the bearing portion for the members B, and between the furcations G thereof a pinion H is secured to the shaft D. This pinion meshes with the gear-wheel I, also arranged above the furcations G and connected to a shaft J, having cranks K secured thereto at opposite ends.

The bar A is freely suspended at its upper end from a pendent hanger L, preferably by means of the eye M. By the term "freely suspended" I mean that the tamper is so

mounted that the manipulation is not to be circumscribed to any particular play or movement. The hanger L is secured at its upper end to a suitable support, and the arrangement is such as to permit of moving the bar A around within a limited radius in relation to a mold N, containing the plastic mass to be tamped. As shown in Fig. 6, the hanger L is connected at its upper end to a trolley O, which is adapted to travel upon a track P in the longitudinal direction of the mold N. The hanger L is also provided with a yielding section, such as the spring Q, which will permit of raising and lowering the bar A.

With the construction as thus far described it will be understood that the operator can move the bar A around into proximity to all portions of the mold N and by rotating the cranks K can impart a reciprocatory movement to the tamping members B, which will cause the feet C thereof to strike upon the plastic mass in rapid succession. As it is usual to put the plastic material into the mold in successive layers and to tamp each layer, it is necessary that the tamper should be vertically adjustable. This adjustment is provided for by the yielding spring Q, and, if desired, the hanger L may be provided with the further adjustment, as by passing it over a sheave R in the trolley O and securing a counterweight S to its opposite end.

To facilitate the operation of the device, the bar A has preferably connected thereto the link T, which at its outer end is secured to a breastplate U. This enables the operator to steady the bar A on its pendent hanger while he is manipulating the cranks K. To further facilitate the operation, the cranks K are provided with handles V, which are pivotally secured to the horizontally-extending pins W, the handles themselves extending vertically. Such a construction permits of grasping the handles V to turn the cranks and also of bearing down upon the bar A at the same time that the cranks are being rotated.

To prevent the sand or gritty matter from getting into the bearing for the reciprocating tampers B, the feet C are preferably cut away above their lower ends to provide clearance-

spaces X and are beveled, as at Y, so as to easily free themselves from the sand. The shafts D and J may be detachably secured to the bar A by providing a double cap Z, which
 5 is secured to the bar A intermediate the bearings for the shafts.

Where it is desired to operate the tamper by power, the hand-cranks may be dispensed with and a flexible shaft may be connected to
 10 the machine, as indicated in dotted lines at J', Fig. 2. This flexible shaft will not interfere with the free movement of the tamper during its operation on different portions of the mold.

15 What I claim as my invention is—

1. A tamper comprising a vertically-adjustable hanger and a reciprocatory tamping member depending from the lower end of said hanger, said hanger having a yielding portion,
 20 said tamper being free to be swung around within a limited radius relative to said hanger into operative relation to the work.

2. A tamper comprising a vertically-extending pendent bar, a pair of reciprocating
 25 tamping members slidably interlocked with the lower end of said bar, a rotary member journaled in said bar above said reciprocating members and connections between said rotary member and reciprocating members for oper-
 30 ating the latter by the former.

3. A tamper comprising a pendent vertically-extending bar, reciprocatory tamping members having a slidable engagement with the lower end of said bar, a vertically-rotatable member journaled within an intermediate
 35 slotted portion of said bar above said reciprocatory members, connections between said rotatable member and said reciprocatory members, and means for operating the rotatable
 40 members.

4. A tamper comprising a vertically-extending pendent bar a reciprocating tamping member slidably secured to the lower end of
 45 said bar, a double crank journaled to said bar and connected to reciprocate said member and vertically-extending handles swiveled to said cranks and adapted to enable the operator to simultaneously rotate the cranks and bear
 down on the bar.

50 5. A tamper comprising a vertically-extending pendent bar having a bifurcated portion, reciprocating tamping members slidably secured to the lower end of said bar below
 55 said bifurcated portion, gearing journaled in said bar, and arranged between the furcations thereof, double cranks for operating said gearing, and eccentrics operatively associated with said reciprocating members.

60 6. A tamper comprising a vertically-extending pendent bar, tamping members slidably secured to said bar, and projecting below the lower end thereof, adjacent feet for

said tampers, cut away above their lower faces to provide clearance-spaces and means secured
 65 to said bar for reciprocating said tamping members.

7. A tamper comprising an overhead track, a trolley thereon, a hanger depending from said trolley, a bar yieldably secured to the lower end of said hanger, a reciprocating
 70 member slidably secured to said bar, and mechanism on said bar for reciprocating said member permitting of the free lateral movement of the bar.

8. A tamper comprising a bar, a reciprocating member secured thereto, mechanism
 75 for reciprocating said member carried by the bar, a pendent hanger for supporting said bar, and a spring in said hanger for permitting of vertical adjustment. 80

9. In a tamper, a hanger and a tamper resiliently suspended therefrom.

10. A tamper comprising a flexible pendent hanger having a yieldable portion and a tamper
 85 freely suspended therefrom.

11. A tamper comprising a flexible pendent hanger, a bearing yieldably suspended therefrom, and members reciprocally secured
 to said bearing.

12. In a tamper, a counterweight, tampering
 90 devices, and a yieldable hanger secured at its respective ends to said counterweight and devices, the tampering devices being freely movable relative to the hanger.

13. A tamper comprising a vertically-ex-
 95 tending pendent bar, a reciprocating tamping member slidably secured to the lower end of said bar, a double crank journaled to said bar and connected to reciprocate said member, and vertically-extended handles swiveled to
 100 said cranks and adapted to enable the operator to simultaneously rotate the cranks and bear down on the bar.

14. A tamper comprising an overhead track, a trolley thereon, a flexible hanger depending
 105 from said trolley, said hanger having a resilient portion, and a reciprocating member operatively associated with said hanger.

15. In a tamper, a depending hanger, a tamper suspended from the lower end thereof, and
 110 a breastplate.

16. In a tamper, a hanger, a bar bifurcated intermediate its ends and having a bearing member at its upper end, reciprocatory mem-
 115 bers secured to the bar, gearing within said bifurcated portion for operating the reciprocatory members, and means for operating the gearing.

In testimony whereof I affix my signature in presence of two witnesses.

LEVI P. NORMANDIN.

Witnesses:

H. C. SMITH,

JAS. P. BARRY.