

No. 728,631.

PATENTED MAY 19, 1903.

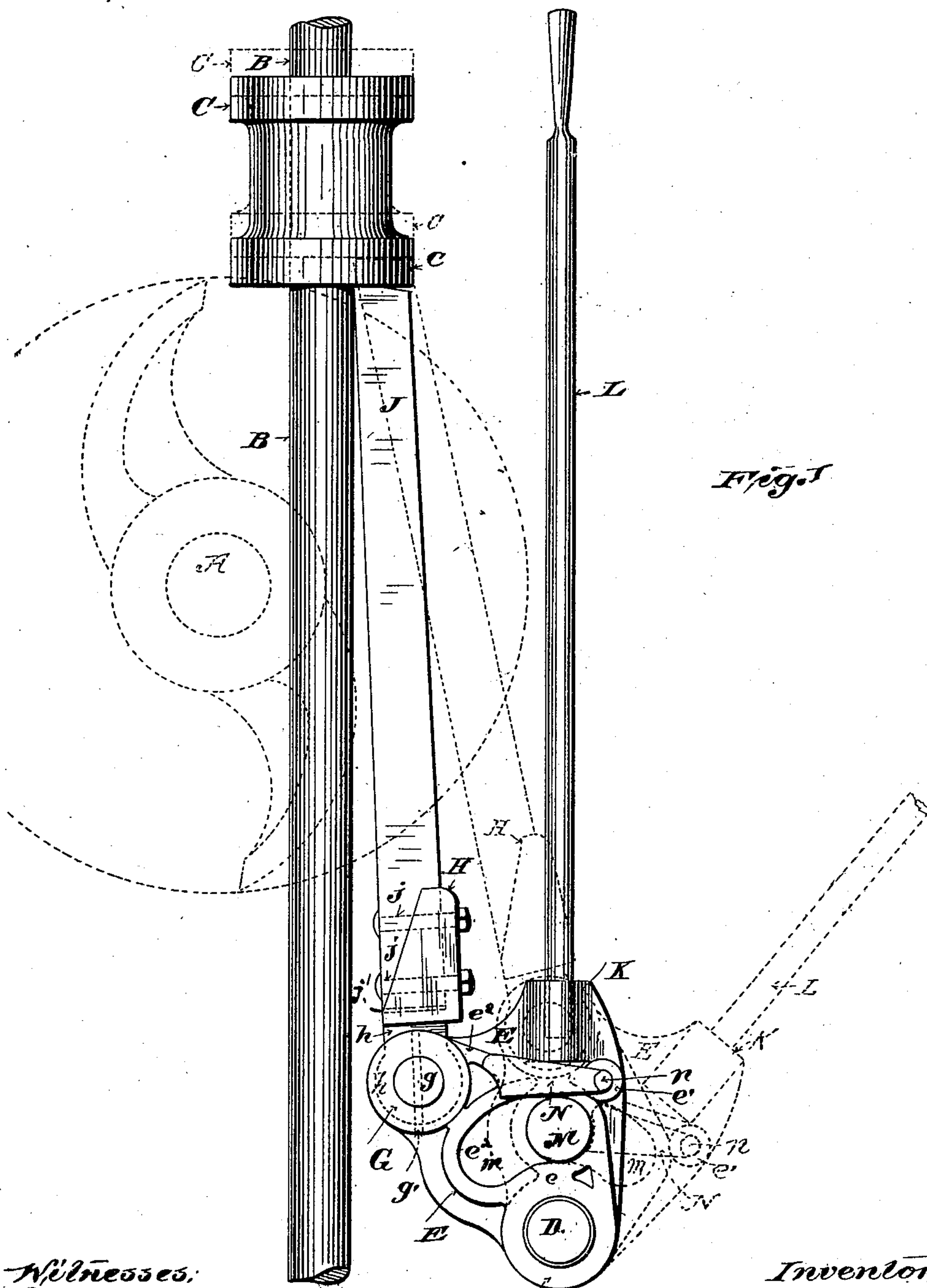
J. J. R. SMYTHE.

HANGING UP OR THROWING OUT OF OPERATION THE STAMPS
OF STAMP MILLS.

APPLICATION FILED JUNE 18, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



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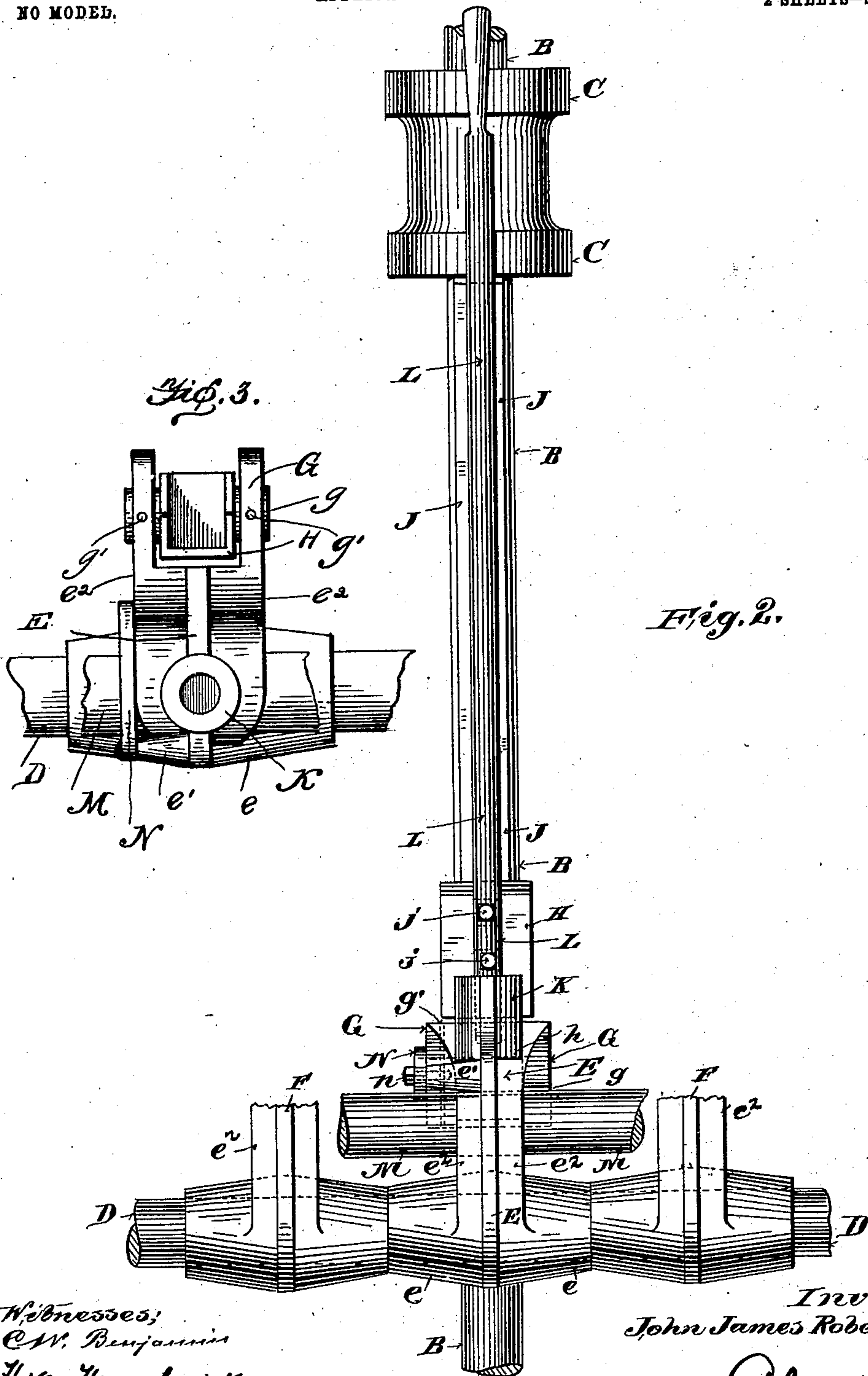
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2 SHEETS—SHEET 2.

NO MODEL.



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UNITED STATES PATENT OFFICE.

JOHN JAMES ROBERT SMYTHE, OF JOHANNESBURG, TRANSVAAL, SOUTH AFRICA.

HANGING UP OR THROWING OUT OF OPERATION THE STAMPS OF STAMP-MILLS.

SPECIFICATION forming part of Letters Patent No. 728,631, dated May 19, 1903

Application filed June 18, 1902. Serial No. 112,230. (No model.)

To all whom it may concern:

Be it known that I, JOHN JAMES ROBERT SMYTHE, a subject of the King of Great Britain, residing at Johannesburg, Transvaal, South Africa, have invented certain new and useful Improvements in Means for Hanging Up or Throwing Out of Operation the Stamps of Stamp-Mills, (for which I have applied for Letters Patent in the Transvaal, No. 344, filed March 29, 1902,) of which the following is a specification.

This invention has reference to improved devices or means for "hanging" up or suspending the stamps of stamp-mills, so as to temporarily throw them out of action, as may be required in the working of the mill. This is ordinarily accomplished by supporting the tappet and stem with its attachments by means of a "finger" or supporting-rod, mounted on the jack-bar in such a way that it can be placed in position to engage the tappet on the stem to support it clear of the rotating cam, the lifting of the stem being done by means of a wedge inserted beneath the tappet, so as to be engaged by the revolving cam, and thereby lift the tappet sufficiently high to permit of the finger or supporting-rod being placed in the requisite position beneath it. This operation is difficult to perform, as well as dangerous, more particularly when the tappet has slipped down the stem below its normal position, which is not infrequently the case. Now my invention is designed to obviate the danger and difficulties experienced in elevating or hanging up the stamps in this way, and has for its object to provide a simple and efficient device which may be readily operated without risk by the operator.

The invention will be readily understood on reference to the accompanying drawings, wherein sufficient of a stamp is shown to illustrate the application thereto of my invention, and by aid of which drawings I will now proceed to describe the invention in detail.

In the drawings, Figure 1 shows a side elevation of the arrangement with the parts in the position they assume just before the stamp is thrown out of action and also in dotted lines in the position they assume when the stamp has been elevated clear of the cam,

and thereby thrown out of operation. Fig. 2 is a front elevation. Fig. 3 is a top plan view of the sector with the rods J and L omitted.

The cam A, stem B, and tappet C are all of the ordinary or other suitable construction, and these parts do not in themselves embody any feature of the present invention.

D is the ordinary jack-bar, on which and in line with the stem B is loosely mounted an angular plate or sector E, so as to be capable of rotating freely thereon. The sector E is formed with a boss *e* at either side, which acts as a spacing or distance piece for the adjacent sectors F, maintaining them in correct position relative to the stems and preventing any lateral motion or movement of the sectors E F longitudinally of the jack-bar D. At one corner the sector is formed with a split boss G or projection provided with a central slot, in which is arranged the socket H. The lower end of the socket H is in the form of an eyepiece *h*, fitting the slot in the boss G and pivotally connected therewith by the pin or pivot *g*. The pivot *g* is fixed in the boss by the key or pin *g'*. The upper end of the socket H is shaped to receive and embrace the lower extremity of the supporting rod or finger J, which is firmly secured therein by means of the bolts *j*. Between the bottom of the socket and the end of the finger is interposed a cushion *j'*, of rubber or other suitable material, to absorb the shock or concussion when the finger is raised to lift the stem. The finger or supporting-rod J, as shown, is adapted to be brought into engagement with the under side of the tappet C and is of such a length as to be capable of being placed in position beneath the tappet just before the cam A raises the tappet to the top or limit of its lift. The opposite corner of the sector is in the form of a socket K, adapted to receive the end of the detachable operating-lever L.

M is a stationary rod or rail arranged parallel with the jack-bar D. This rod works in a radial slot *m*, formed in the sector E. The slot *m* is slightly wider at the center than at the ends, so as to give a small amount of clearance and not impede the movement of the sector when it is drawn over by the lever L to raise the stem B. This rail M forms a stop and rest for the sectors in their alterna-

tive positions, as is shown in Fig. 1 of the drawings.

The angular plate or sector E is strengthened by means of the webs or ribs e^2 , and at one side of the slot m a projection e' is formed, on the end of which is pivotally attached by the stud n a catch or stop N. The free end of the catch N is hollow or shaped so as to fit partially around the rod M to lock the parts in position while the tappet and stem are being supported by the sector.

The operation of the parts will be obvious from the foregoing description. The finger J is placed beneath the tappet C just as the cam A is about to disengage it, and the tappet falls onto the finger J. The lever L is then operated to pull over the sector E to raise the finger J, which elevates the tappet C clear of the cam A, as is clearly shown by dotted lines in Fig. 1. The catch N is then placed in engagement with the stationary rail M to lock the parts in position.

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

1. A means for "hanging up" the stamps of stamp-mills consisting of an angular plate or sector loosely mounted on the jack-bar and provided with a socket to receive the supporting rod or "finger" and with a hole or socket for an operating-lever, and a catch for retaining it in operative position, substantially as described.

2. A means for "hanging up" the stamps of stamp-mills comprising an angular plate or sector mounted on the jack-bar, so that it may rotate freely thereon, a socket pivotally attached thereto in which the supporting rod or "finger" is fixed and a socket or hole for the operating-lever, and a catch pivoted to the sector, arranged so that when the sector is rotated on the jack-bar it lifts the "finger" to elevate and retain the tappet clear of the cam, substantially as described.

3. In a means for "hanging up" the stamps of stamp-mills the combination with the jack-bar of an angular plate or sector loosely mounted thereon, a socket shaped to receive and embrace the lower extremity of the supporting rod or "finger" pivotally attached at one corner of the socket, a socket or hole for an operating-lever, and stops or rests for supporting the sector in their alternative positions, substantially as described.

4. In a means for "hanging up" or throwing out of operation the stamps of stamp-

mills the combination with the jack-bar of a sector mounted so as to be capable of rotating thereon, a socket for the "supporting-finger" pivotally attached to one corner of the sector and the "supporting-finger" fixed therein, a sector or hole for the reception of the operating-lever at the other corner of the sector and the operating-lever arranged therein, a rod or rail arranged parallel with the jack-bar working in a slot formed in the sector, to form a stop and rest for the parts in their alternative positions, substantially as described.

5. In combination, in a means for "hanging up" the stamps of stamp-mills, the jack-bar D, the angular plate or sector E loosely mounted on the jack-bar, the boss e at either side of the sector E forming spacing or distance pieces for the adjacent sectors and preventing lateral movement of the sectors, the split boss G at one corner of the sector, the socket H comprising the eyepiece pivotally attached to the boss G and shaped to embrace the extremity of the "finger" J, the socket K formed at the opposite corner of the sector, the operating-lever arranged therein, the stationary rod or rail M parallel with the jack-bar, the radial slot m in the sector in which the rail M works to act as a rest or stop for the parts in their alternative positions, substantially as described.

6. In combination the jack-bar D, the sector E, the boss e thereof, the split boss G at one corner of the sector, the socket H pivoted in the boss G, the pin or pivot g , the bolts j , the rubber cushion j' , the supporting rod or "finger" J, the socket K at the opposite corner of the sector, the operating-lever L fitted therein, the stationary rail M arranged parallel with the jack-bar working in the radial slot in the sector and acting as a stop and rest for the parts in their alternative positions, the radial slot m , the strengthening-webs e , the projection e' on the sector and the catch or stop N pivoted thereon and shaped to partially embrace the stationary rail M, substantially as described and shown.

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

JOHN JAMES ROBERT SMYTHE.

Witnesses:

GEO. A. LURIA,

CHAS. OVENDALE.