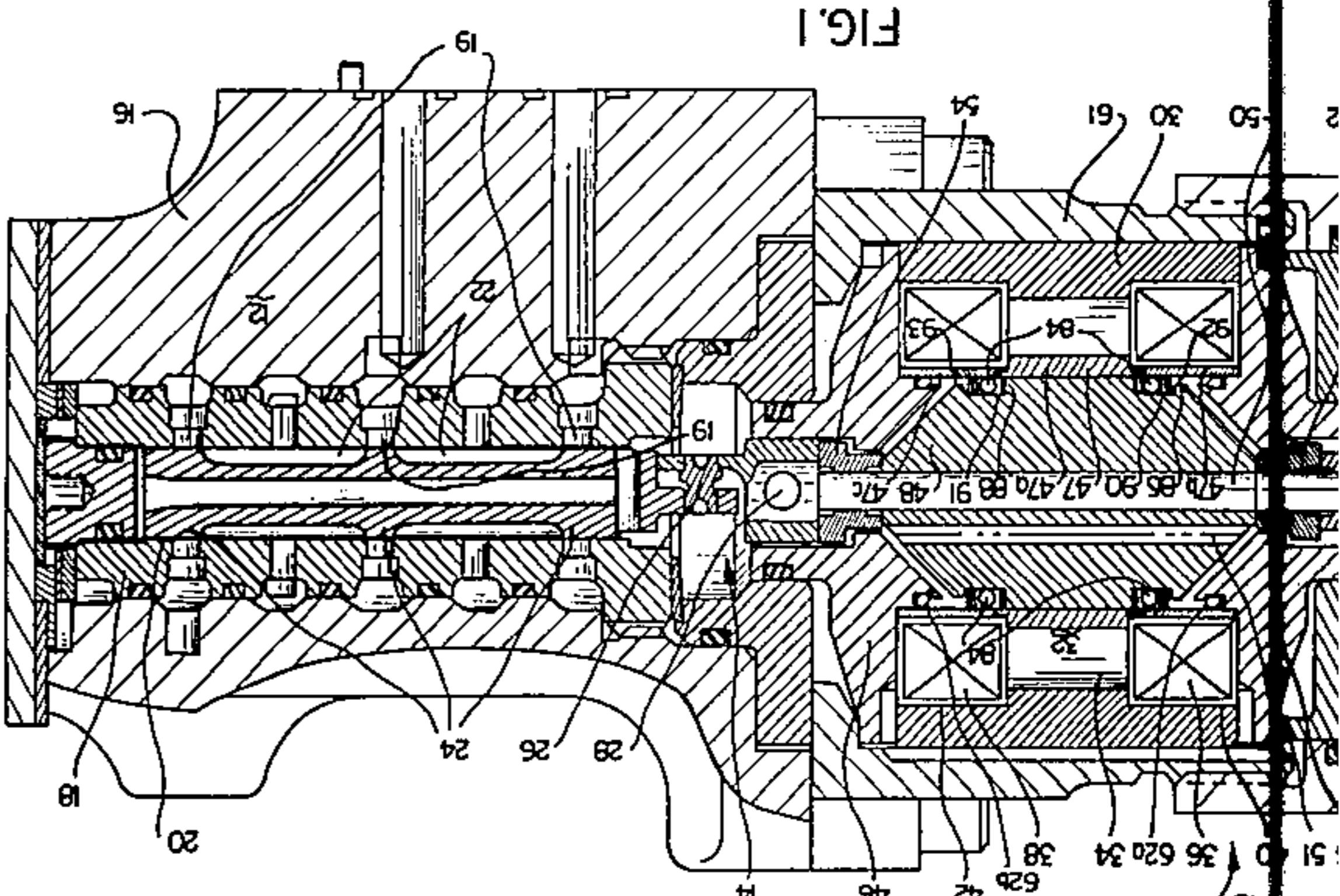


TEST TARGET  
IMAGE SYSTEM

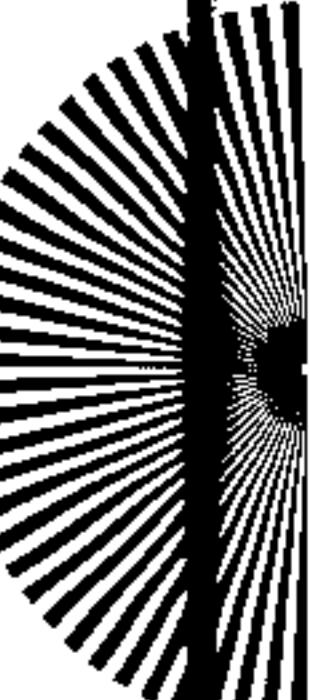
**and phosphodiesterase inhibitors, hypotensive agents and carbostyryl derivatives are weak in heart rate increasing activity and also in cardiac muscle contraction increasing activity, and the carbostyryl derivatives are useful.**

Carbstyryl derivative or a pharmaceutically acceptable acid addition salt thereof, having excellent platelet aggregation inhibitory effect, calcium antagonism, hypotensive effect and phosphodiesterase inhibitory effect are useful as prophylactic or treating agents for thrombosis, circulation improving agents for coronary blood flow such as coronary vasodilators, hypotensive agents and phosphodiesterase inhibitors. Furthermore, the carbostyryl derivatives are weak in heart rate increasing activity and also in cardiac muscle contraction increasing activity, and the carbostyryl derivatives are useful.

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4 PT.

$$\cos \beta^* = \sqrt{\frac{K_1^2 + \left( K_2 - n \frac{T'}{T} \right)^2}{K_2 - n \frac{T'}{T'}} + K_3^2}$$

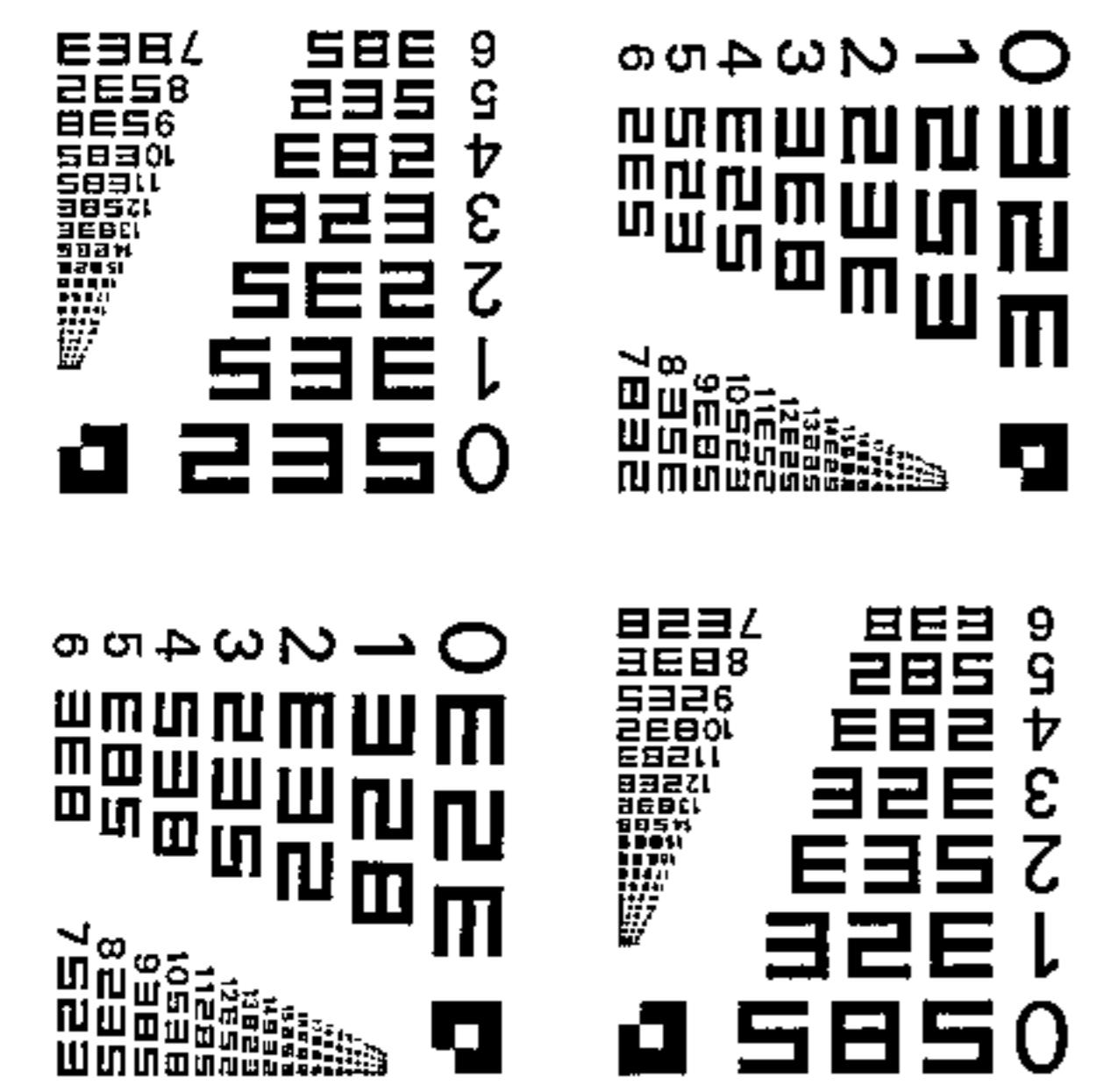


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6 PT.

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8 PT.



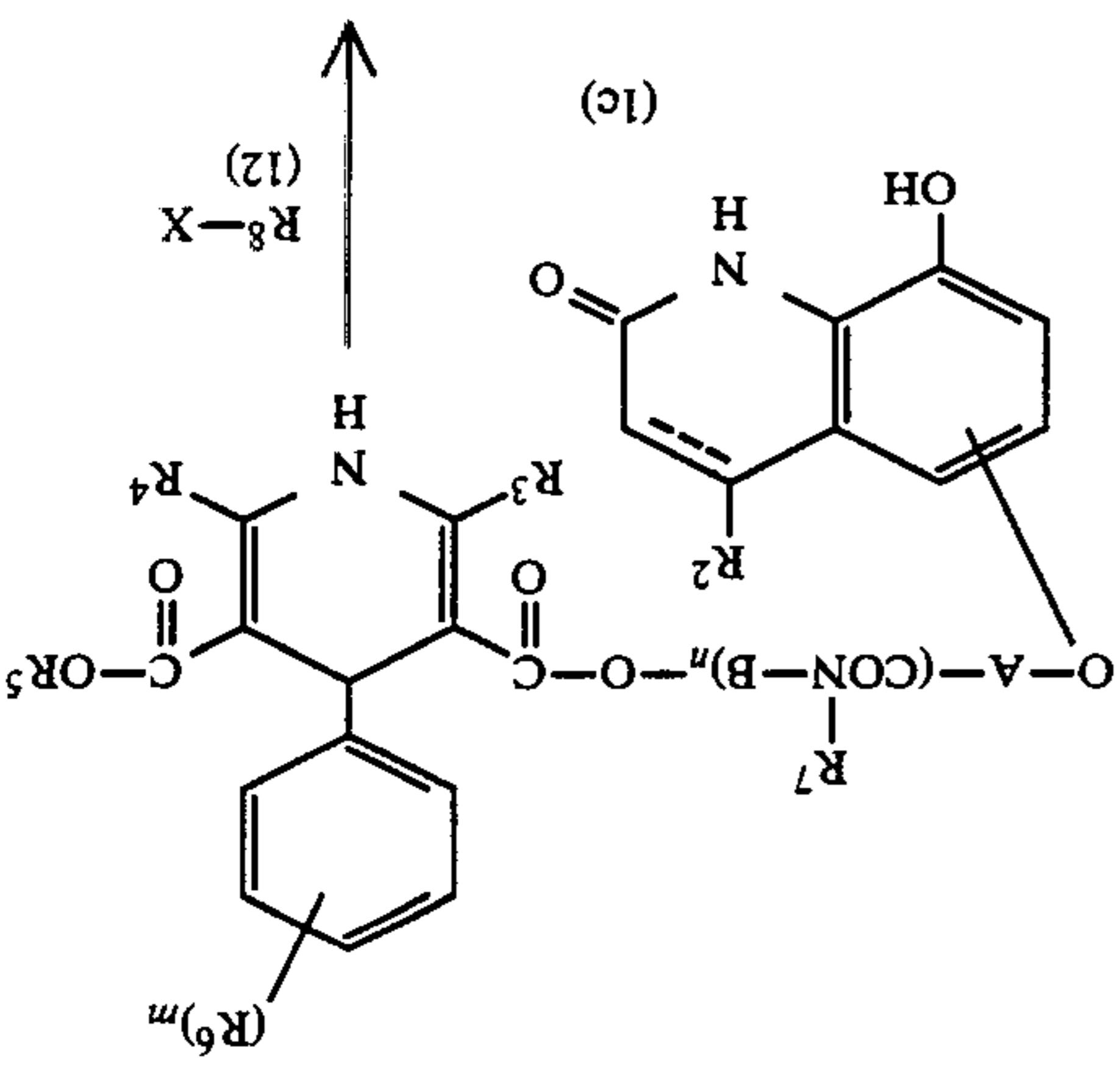
100mm

$$y_{ref}(t) = K_1 e^{-(K_2 t + 2as)} + K_3 (1 - e^{-2as})$$

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6 PT.



2 Sheets.

FRANKLIN FREY.

No. 124,047

Sheet II.

Improvement in Beater Presses.

Patented Feb. 27, 1872.

Fig. 3.

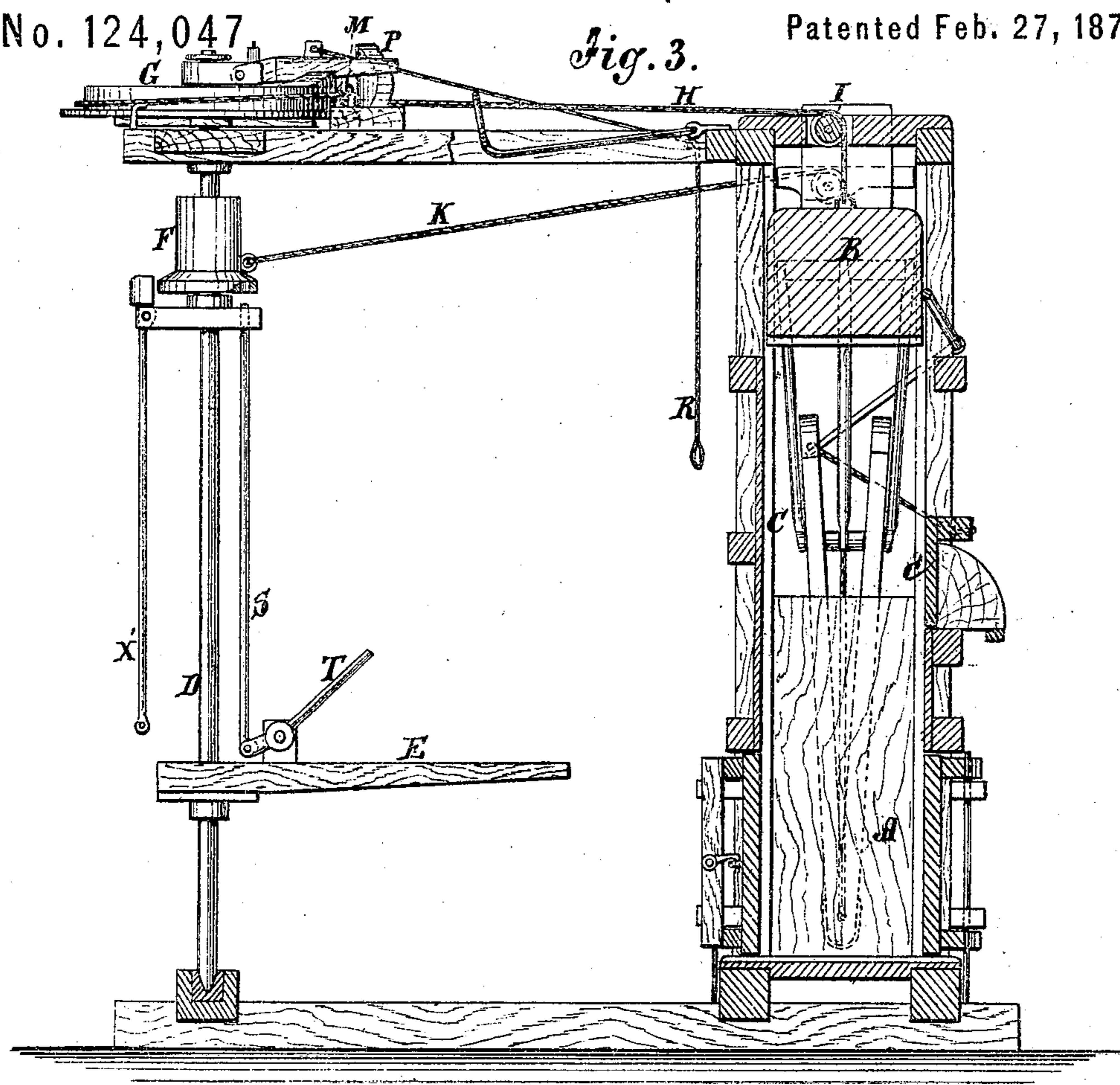
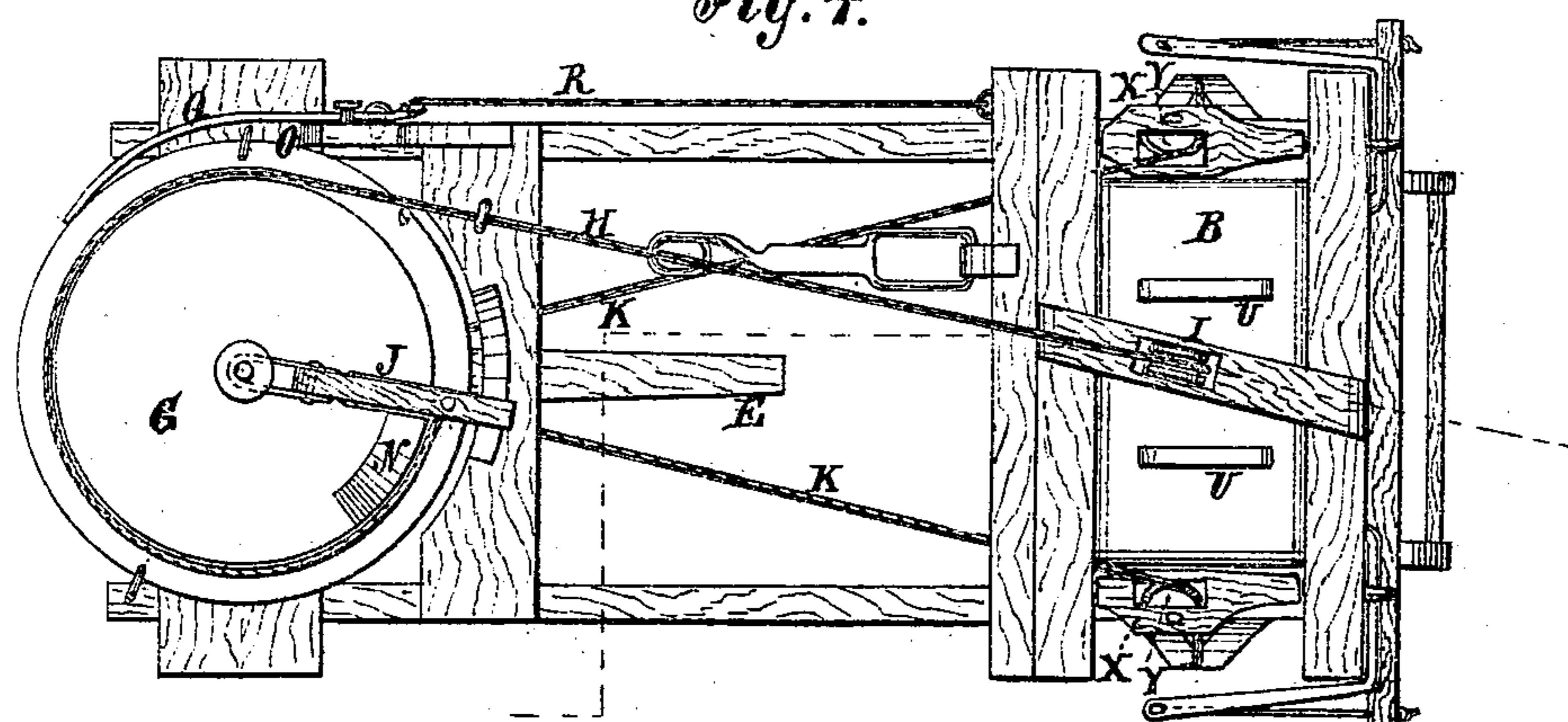


Fig. 4.



Witnesses:

A. Bonnenendorff.  
Geo. W. Mabee

Inventor:

F. Frey  
J. Muller  
Attorneys.

# UNITED STATES PATENT OFFICE.

FRANKLIN FREY, OF LIBERTY, ILLINOIS.

## IMPROVEMENT IN BEATER-PRESSES.

Specification forming part of Letters Patent No. 124,047, dated February 27, 1872.

Specification describing a new and Improved Press, invented by FRANKLIN FREY, of Liberty, in the county of Adams and State of Illinois.

My invention consists of a beater-press wherein the beater is raised by a capstan-pulley, and a loose arm carried by said pulley and held so as to be let free by a tripping apparatus at the proper time to let the beater fall, and the beater is forced down to press the ball after it has been beaten in this way as much as required by levers worked by another drum on the capstan, which is disconnected from the shaft, so as not to turn when the beater is to be worked.

Figure 1 is a sectional elevation of my improved press. Fig. 2 is a plan view. Fig. 3 is partly a side and partly a sectional elevation.

A is the pressing-case, and B the follower or beater arranged in a vertical frame, the follower being provided with guides or ways C for running on. D is a capstan, with a sweep, E, and a loose drum, F, fast one, G, and connecting and tripping devices for working the follower, the large drum G at the top being to raise the follower by arm J, the cord H and pulley I for letting it fall upon the loose hay to pack it down as the case is stuffed, and the small drum F being to force the follower down by means of the cords K and levers L. The cord H is attached to a stud, M, hanging from the arm J in front of the face of drum G, so as to wind on said drum when the arm is carried around by it, said arm being engaged by the stud or projection N upon the upper side of the drum, and carried by it nearly a revolution from the point of starting at the stop O to the fixed tripper P, up whose inclined face the projecting end of arm J rises high enough to escape over stud N and fly back again to stop O, where it is arrested by an India-rubber cushion. This lets the follower fall upon the loose mass of hay, which is put in the case under it while lifted up to beat it down. A continuous rotation of the capstan will lift the follower or beater, and let it fall at each revolution as long as the capstan is turned. The latter may be stopped just before the tripping-arm arrives at the tripper P to hold the follower up long enough to put in the hay. When the beaten mass has accumulated sufficiently to form a bale, the arm J is held up by

the lever Q and cord R, so that the stop N will pass under it to allow the capstan to be turned for actuating the pressing-levers without winding up cord H. The said levers are then set in motion by the capstan, drum F, and cords K, the said drum being connected to the shaft so as to be turned by the locking-bolt S and lever T, which force the short ends of the levers U of the follower, and complete its downward movement. These levers are suspended in a yoke, V, pivoted near the top of the frame, so that they can swing forward and back, and thus not slip on the studs U, as they would if fixed on immovable fulerums, so that the ends moved in circles. The said levers are crotched, and the ends, which are separated, bear upon the follower at points sufficiently distant from each other to keep it level. The guide-rollers X, for cords K, are mounted in oscillating bars Y, which turn as the levers rise or fall, and the planes of the cords between the said rollers and levers change. The falling door Z, on the side of the case where the hay is put, is connected to the arms W of a cranked rod, W', so arranged that the follower comes against it when rising, and turns it so as to close the door for holding the loose hay put in under the follower to be beaten down. The door falls again when the follower passes below the said cranked rod. X' is a brake-lever employed to act on the drum F to regulate the descent of the outer ends of the levers, which fall down by their weight when said drum is released, so that the inner ends swing up clear of the follower, allowing it to rise and fall between them.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The rotary disk G having stud N, the incline P on frame, the double-hinged arm J, lever Q, and the winding rope H, combined, as described, with a follower, for the purpose set forth.

2. The clutch and loose pulley F with brake X' for operating through cords K K, the pressure-levers L L, and winding-up pulley G, combined with same shaft D, as and for the purpose described.

FRANKLIN FREY.

Witnesses:

ROBERT F. CARTER,  
H. F. BLANK.