

(No Model.)

C. A. TABOR.

STOP MOTION FOR RAILWAY HEADS.

No. 288,137.

Patented Nov. 6, 1883.

fig 1,

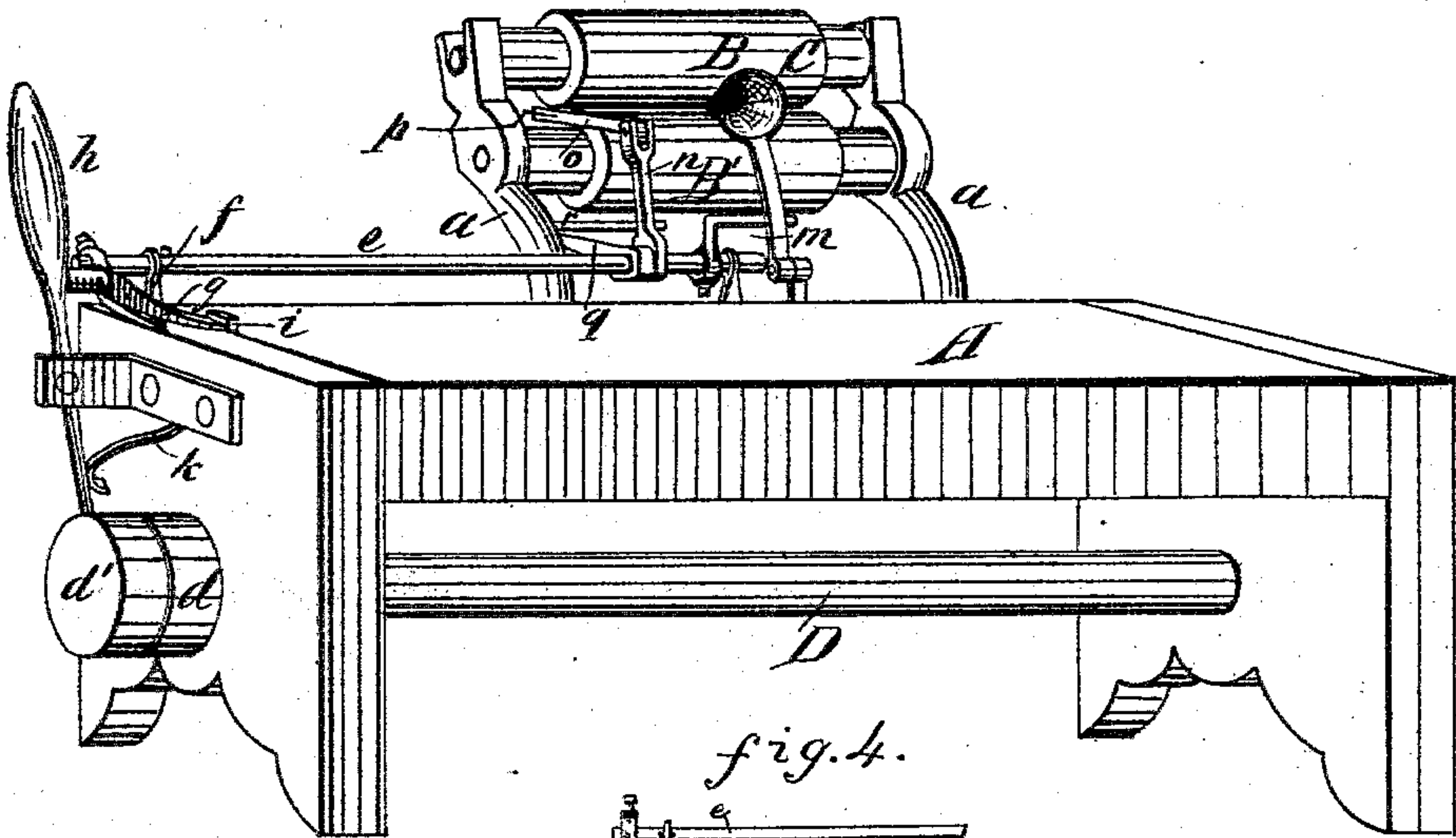


fig 2,

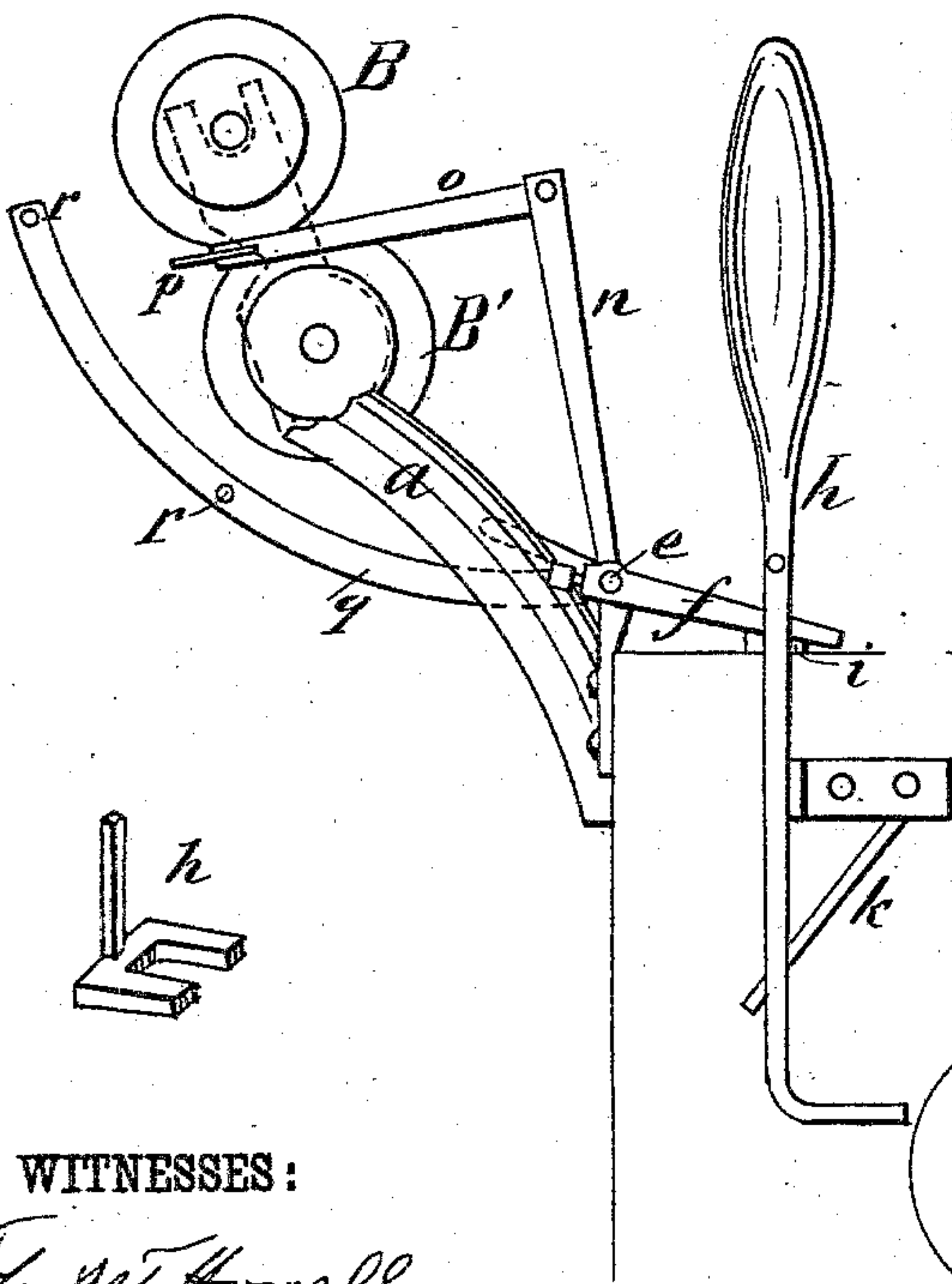
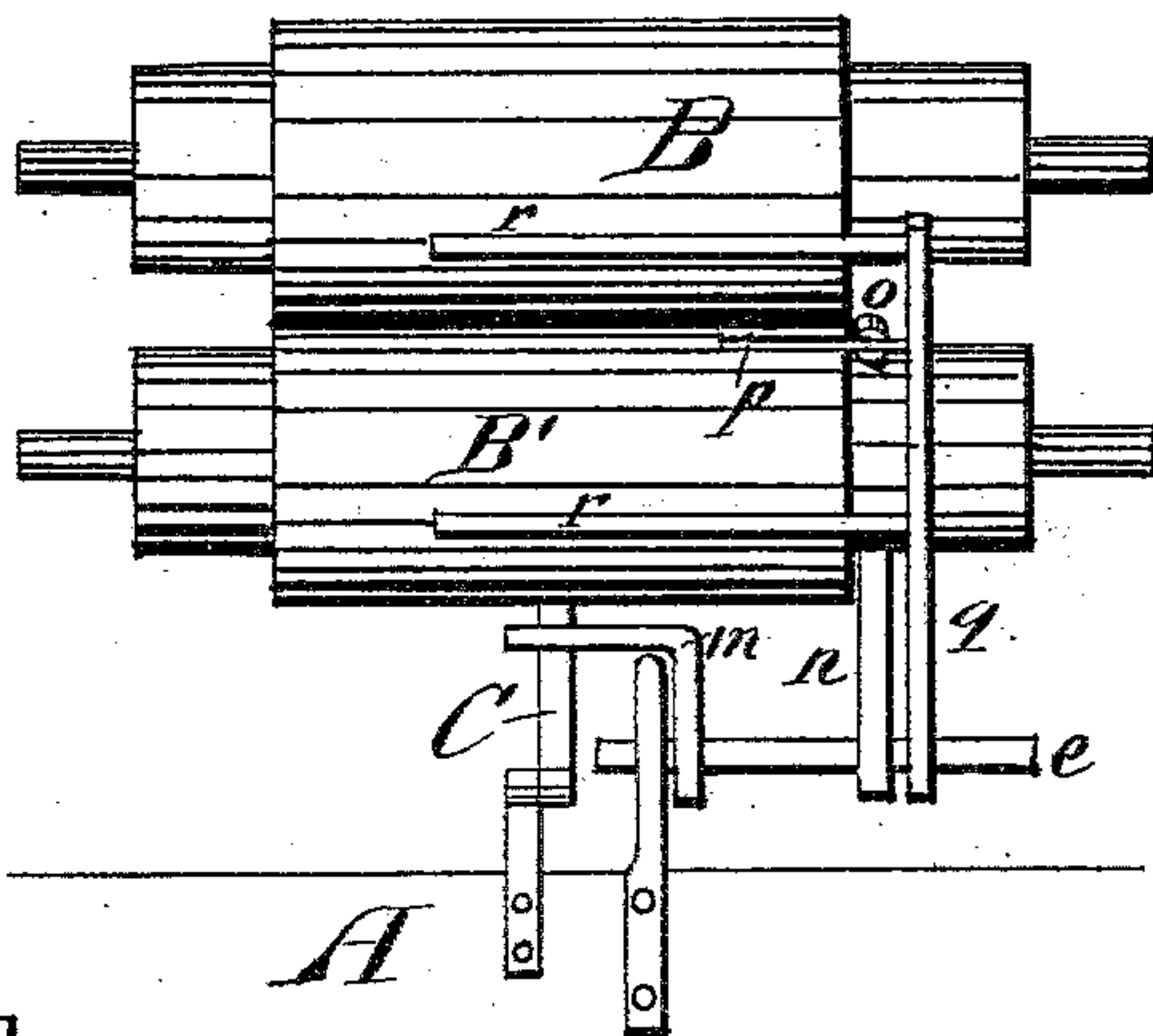


fig 3,



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

CLARK A. TABOR, OF ROCKVILLE, RHODE ISLAND, ASSIGNOR TO HIMSELF
AND FRANK E. TABOR, OF SAME PLACE.

STOP-MOTION FOR RAILWAY-HEADS.

SPECIFICATION forming part of Letters Patent No. 288,137, dated November 6, 1883.

Application filed November 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, CLARK A. TABOR, of Rockville, in the county of Washington and State of Rhode Island, have invented a new and Improved Stop-Motion for Railway-Heads, of which the following is a full, clear, and exact description.

The object of my improvement in stop-motions is to effect the stoppage of the machine, first, when the roving breaks; second, when the trumpet is choked by bunches on the roving; and, third, in case the roving winds around either of the calender or compact rollers.

To these ends my invention consists in an improved construction and combination of parts, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the platform or table of a drawing-frame with my improvements applied. Fig. 2 is an end view of the same. Fig. 3 is an elevation showing the arms, rock-shaft, latch, and pivoted finger, and their position with reference to the rollers of the calender-rollers. Fig. 4 is a plan view, showing the latch locked against the table projection and above the rock-shaft arm, also showing the rock-shaft, the belt-shifter, the rigid table projection, and the crank-arm.

A is the platform which supports the drawing-rolls and their operating mechanism, which, however, are not shown in the drawings.

a a are brackets supporting the compact-rollers B B'.

C is the trumpet, pivoted on the table A.

D is the operating-shaft, provided with a fixed pulley, *d*, and a loose pulley, *d'*; and *e* is a rock-shaft fitted in suitable bearings at one side and lengthwise of the table A, and provided at one end with an arm, *f*, that extends beneath a latch, *g*, which is pivoted to the belt-shifter *h*. The latch *g*, being loosely pivoted, drops by gravity behind a projection, *i*, on the table, for the purpose of retaining the belt-shifter upon the fast pulley *d*.

k is a spring secured to the side of the platform, and engaging with the belt-shifter to move it and the belt to the loose pulley.

Upon the inner end of the rock-shaft *e* is a bent arm, *m*, extending in front of the trumpet-stem; also a second arm, *n*, to which is attached a pivoted finger, *o*, provided with a projection, *p*, of thin sheet metal, that extends between the two rollers B B'. The shaft *e* is also provided with a third arm, *q*, which extends beneath the lower roller, B', and is curved upward in front of the two rollers, the outer end being provided with two fingers, *r*, adjacent to the rollers. By this construction the movement of either arm in one direction acts to rock the shaft *e*, thereby raising the arm *f*, which is beneath the latch *g*, and releasing the latch *g* from the projection *i*, so that the spring *k* may act to move the belt-shifter to the loose pulley, and thereby stop the machine.

In the operation, the roving having been passed through the trumpet and between the compact-rollers, as usual, the belt-shifter is moved to carry the belt upon the fast pulley *d*, and the latch *g* engaged with the projection *i*, to retain the shifter in that position. In case the roving should break while passing through or after it has passed through the trumpet C, the upper compact-roller, B, will descend upon the lower roller, and by contact with the projection on finger *o* the roller will draw the arm *n* forward, thereby turning the shaft *e* and releasing the belt-shifter. Similarly, if the trumpet be choked by a bunch upon the roving, the trumpet will be moved forward toward the rollers, and the arm *m* being thereby moved downward, the shaft *e* will be turned and the belt-shifter released. In case the roving should wind around either of the rollers B B', the increased thickness caused by this winding will act upon the fingers *r* in front of the roller, thereby moving the arm *q* and operating the shaft *e* in the same manner. It will be seen that the machine is thus stopped in any one of the three ways mentioned and in any of the contingencies that usually arise in this class of machines.

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

1. The combination, with devices for shifting the belt, the compact-rollers B B', and the trumpet C, pivoted to an upright from the table A, of the rock-shaft *e*, carrying a rigid

arm, *m*, bent laterally in front of the trumpet-stem, all substantially as described, and for the purpose specified.

2. The combination, with devices for shifting the belt, and the compact-rollers B B', of the rock-shaft *e*, carrying the arm *n*, with finger *o* and projection *p*, the latter extending sidewise between the rolls, all substantially as described, and for the purpose specified.

3. The combination, with devices for shifting the belt, the compact-rollers B B', and the rock-shaft *e*, of the arm *q*, passing under the rolls, upwardly curved in front of them, and provided with two lateral fingers, *r r*, all substantially as described, for the purpose specified.

4. The combination, with the rock-shaft *e*, and means for rocking it when the trumpet chokes, the roving breaks, or the roving becomes wrapped about the rollers, the table A, the spring *k*, and the belt-shifter *h*, of the arm *f*, rigidly attached to said shaft, the latch *g*, loosely pivoted to the side of said lever, and the rigid table projection *i*, all substantially as described, for the purpose specified.

CLARK A. TABOR.

Witnesses:

ORVILLE G. BARBER,
GEORGE E. GREEN.