

(No Model.)

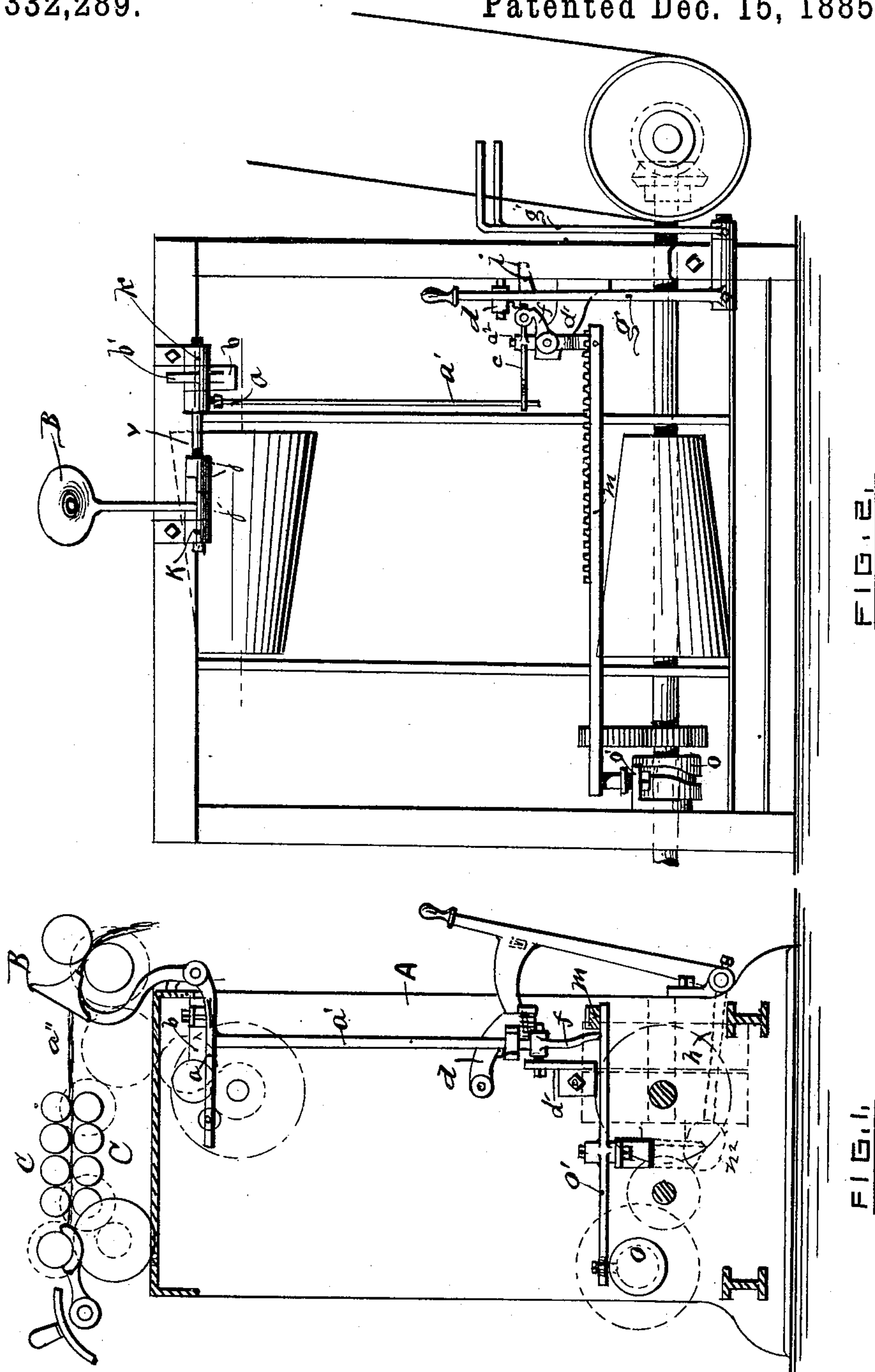
2 Sheets—Sheet 1.

A. SCHAEER.

STOP MOTION FOR RAILWAY HEADS, &c.

No. 332,289.

Patented Dec. 15, 1885.



WITNESSES:

INVENTOR.

E. P. Emmons
J. W. Clarke.

Amos D. Schaer

(No Model.)

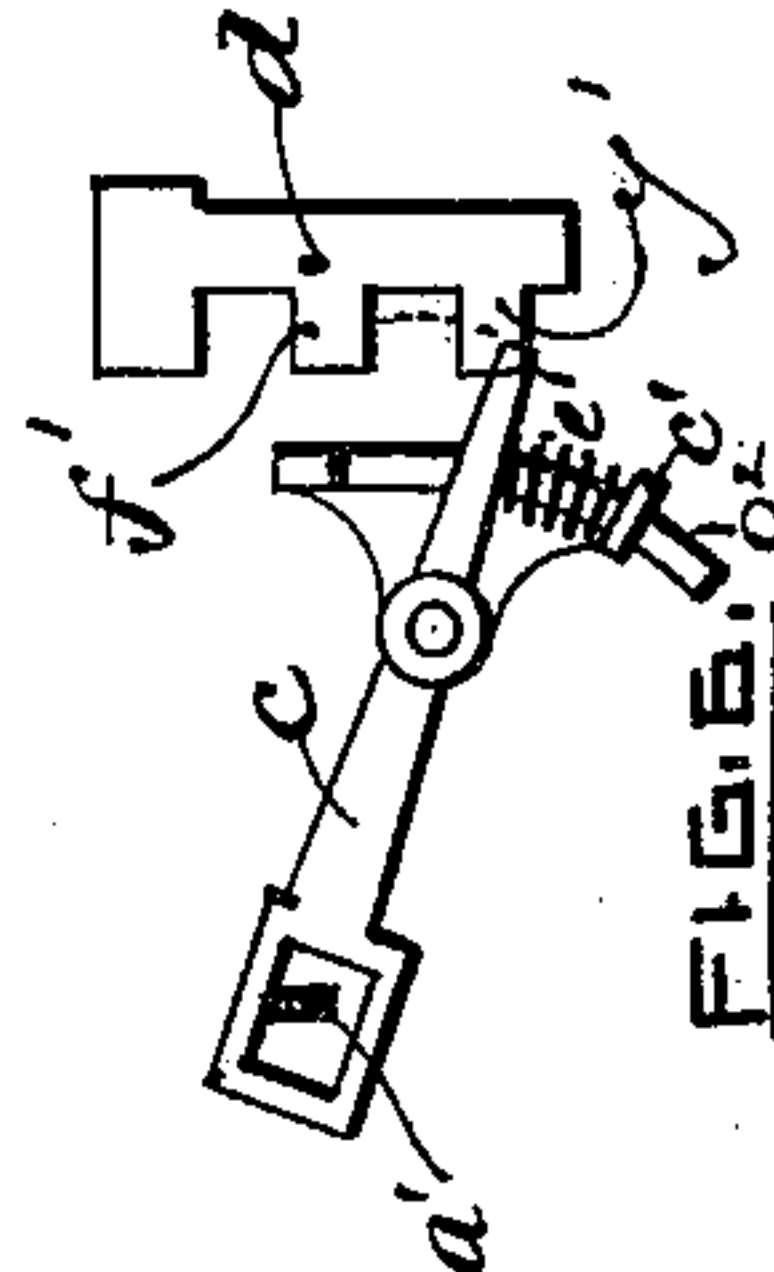
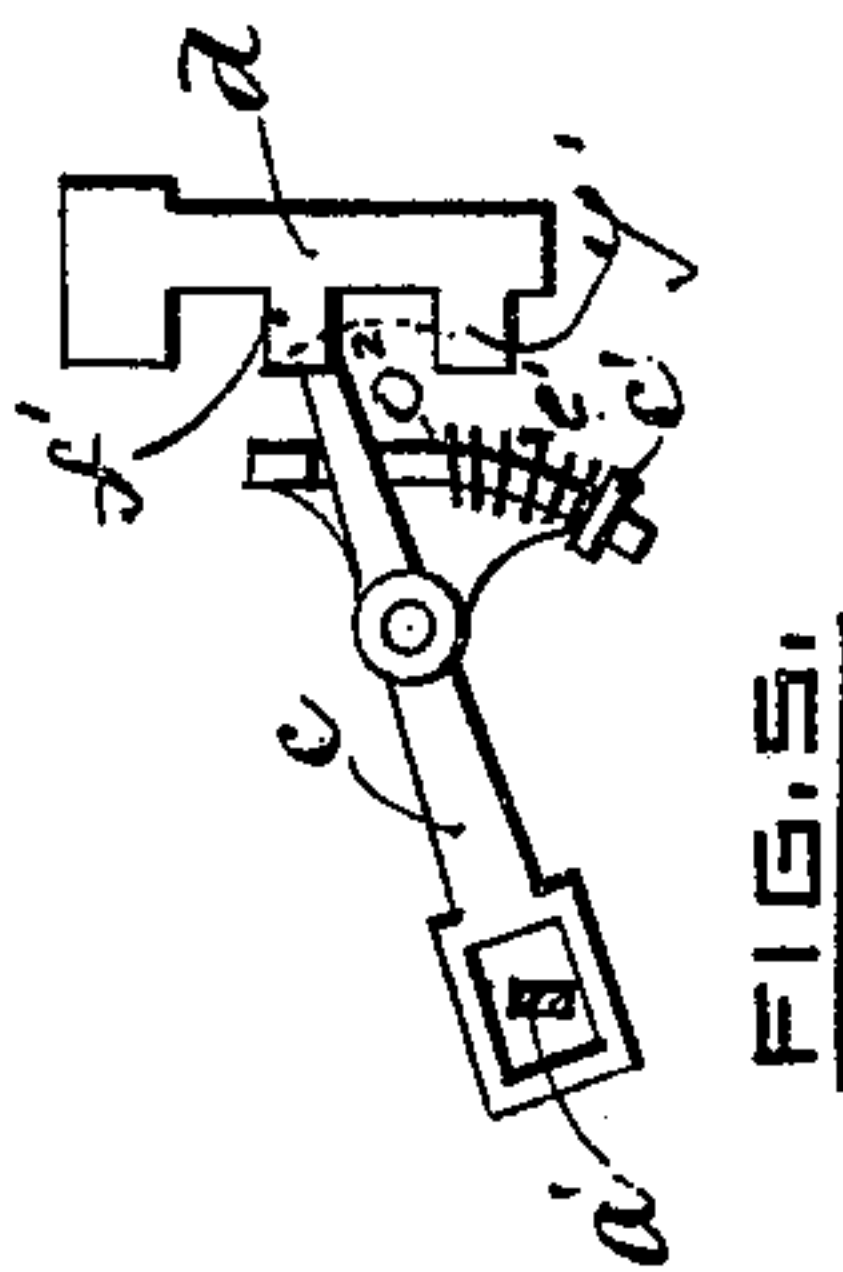
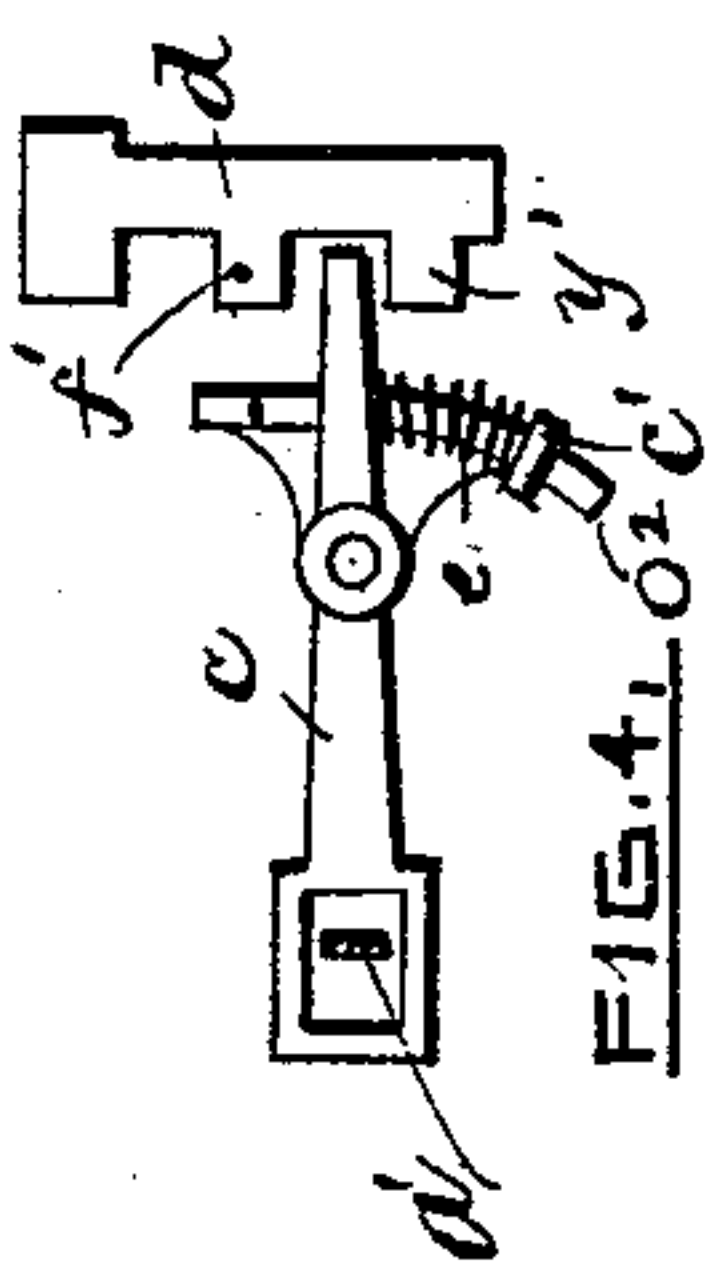
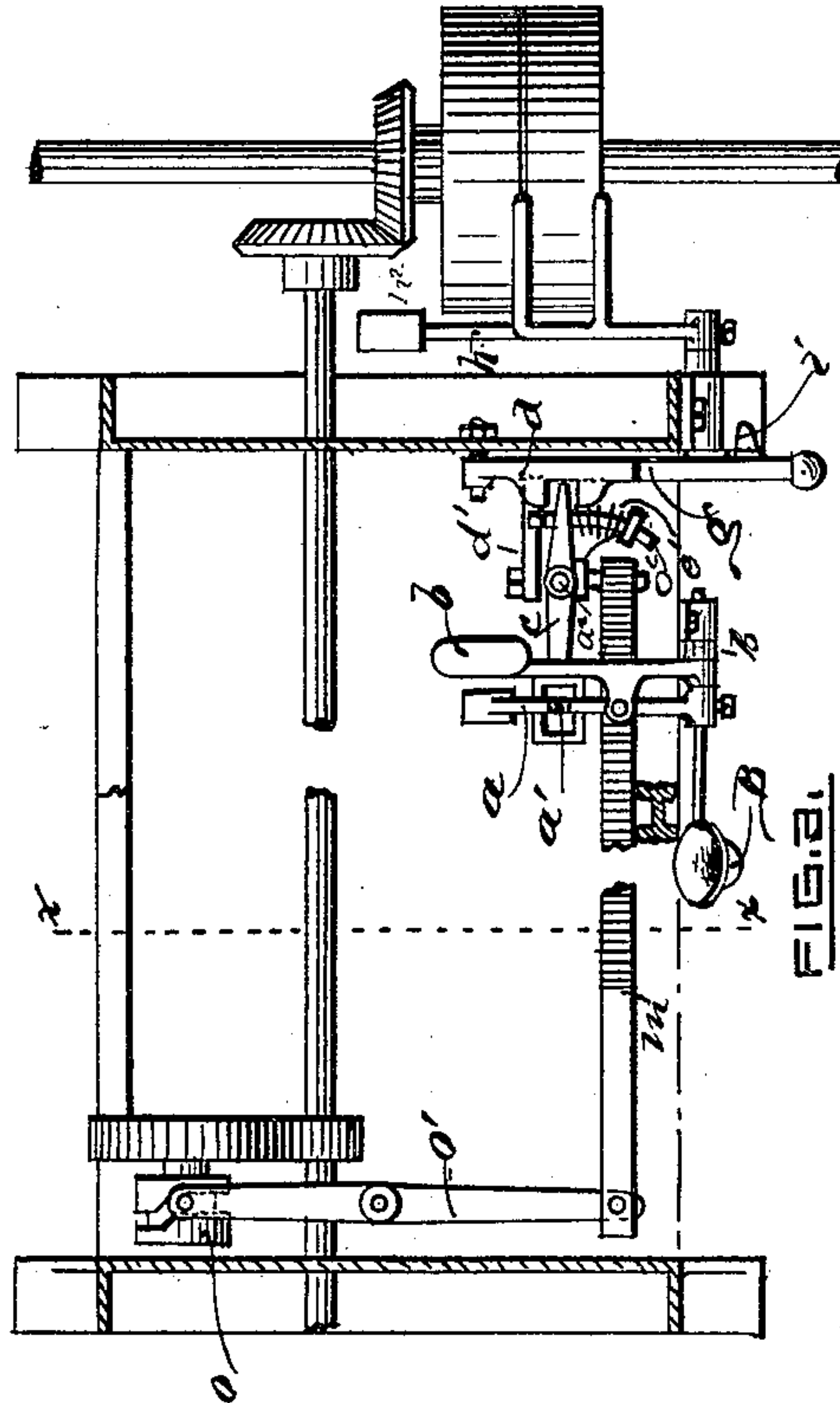
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INVENTOR:

Amos Schaer

UNITED STATES PATENT OFFICE.

ARNOLD SCHAER, OF PHENIX, RHODE ISLAND.

STOP-MOTION FOR RAILWAY-HEADS, &c.

SPECIFICATION forming part of Letters Patent No. 332,289, dated December 15, 1885.

Application filed January 9, 1884. Serial No. 116,881. (No model.)

To all whom it may concern:

Be it known that I, ARNOLD SCHAER, of Phenix, in the county of Kent and State of Rhode Island, have invented certain new and useful Improvements in Stop-Motions for Railway-Heads, &c., of which the following is a full and correct description, reference being had to the accompanying drawings, making a part of this specification.

This invention applies to drawing-machines not using eveners, as well as to those using eveners operated by other means than the trumpet back of the calender-rolls, as described in the Letters Patent granted to me October 30, 1883, No. 287,585.

In the drawings, Figure 1 shows a vertical cross-section of a railway-head with my improvements applied, taken through the lines *x*, Fig. 3. Fig. 2 shows a front elevation of the same with the drawing-rolls, calender-rolls, and their gearing omitted. Fig. 3 is a section plan view illustrating the improvements. Figs. 4, 5, and 6 show enlarged views of a part of the latch-tripping devices in different positions.

A is the end frame of a railway-head. C C are the drawing-rolls. B is the trumpet-guide that conducts the sliver of cotton to the calender-rolls. The trumpet B is hung loosely by means of an arm and hub, *j'*, on the shaft V, held in the bearings *k k*, attached to the frame. A collar, *j*, is made fast on the shaft V by the side of the hub *j'* of the trumpet-arm. A projection on one side of the collar *j* comes in contact with a projection on the hub of the trumpet-arm, so as to hold the trumpet up against the friction of the draft of the sliver through the trumpet, which is accomplished by the weighted lever *a*, which is also made fast on the shaft V. A long arm, *a'*, attached to the lever *a* extends down through a slot in the lever *c*, that swings sidewise on a stud, *a²*, on the hub of the knee-lever *f*, which is pivoted to a standard, *d'*, attached to the frame. The knee-lever *f* receives a continuous rocking motion from the cam *o* by means of the lever *o'* and the bar *m*, as described in my Letters Patent above referred to. The cam *o* receives its motion through a shaft geared to the driving-shaft. The knee-lever *f* has a flat horizontal arm extending out under the short end of the lever *c*. This arm has a projection

on its top, with a curved stud, *o²*, in it, holding an open spiral spring, *c'*, which the lever *c* compresses when it swings to the right. (See Fig. 6.) A latch-lever, *d*, is pivoted to the frame, and so placed that its free end shall drop down against the end of the arm *g* on the belt-shipper *g'* when the machine is in motion, and hold the shipper out. (See Figs. 2 and 3.) Two projections, *f' y'*, are made on one side of the lever *d*, between which projections the end of the lever *c* plays up and down when the knee-lever *f* is moved by the cam *o*—that is, when the machine is running properly.

The operation is as follows: When the sliver *a''* is running in proper condition, the weight on the lever *a* will hold the trumpet B up in its proper position, the weight being so adjusted as to just counterbalance the friction of the draft of the sliver through the trumpet, and in this position the arm *a'* on the lever *a* will cause the lever *c* to press lightly on the spiral spring *c'* on the top of the knee-lever *f*, and the stopping devices will be in the position shown in Fig. 4, the end of the lever *c* being free to move up and down between the projections *f' y'* on the lever *d*; but if the sliver breaks or becomes reduced from any cause the friction of the sliver in the trumpet B will cease or be lessened, so that the trumpet will not be held up against the weight on the lever *a*, but will fall back and allow the weight on the lever to depress it, and by means of the arm *a'* move the lever *c* so that its end will be under the projection *f'* on the side of the latch-lever *d*, as shown in Fig. 5, when the upward rocking motion of the knee-lever *f* will cause the end of the lever *c* to throw up the latch-lever *d* and release the arm *g* of the belt-shipper which was held out by that lever. (See Figs. 2 and 3.) This leaves the shipper *g'* free to be thrown toward the frame by the weight *n²* on the arm *h*, which is fast on the shaft of the belt-shipper, which throws the driving-belt from the tight pulley to the loose pulley and stops the machine. On the other hand, if the trumpet B becomes clogged with thick bunches in the sliver, it will be carried toward the calender-rolls with sufficient force to overcome the resistance of the weight on the lever *a*, and cause the lever *c*, by means of the arm *a'*, to

compress the spring c' and bring the end of the lever c under the projection y' on the latch-lever d , as shown in Fig. 6, so that the lever d will be lifted by the rocking motion of the
5 knee-lever f through the lever c , as before, and the shipper will be free to cast off the driving-belt and stop the machine.

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

10 The trumpet B, provided with the hub j' ,

shaft V, collar j , and lever a , having the arm a' , in combination with the lever c , lever d , having projections f' and y' , knee-lever f , bar m , cam o , lever o' , arm g , lever h , weight n^2 , and shipper g' , substantially as and for the pur- 15
pose set forth.

ARNOLD SCHAER.

Witnesses:

E. P. EMMONS,

T. W. D. CLARKE.