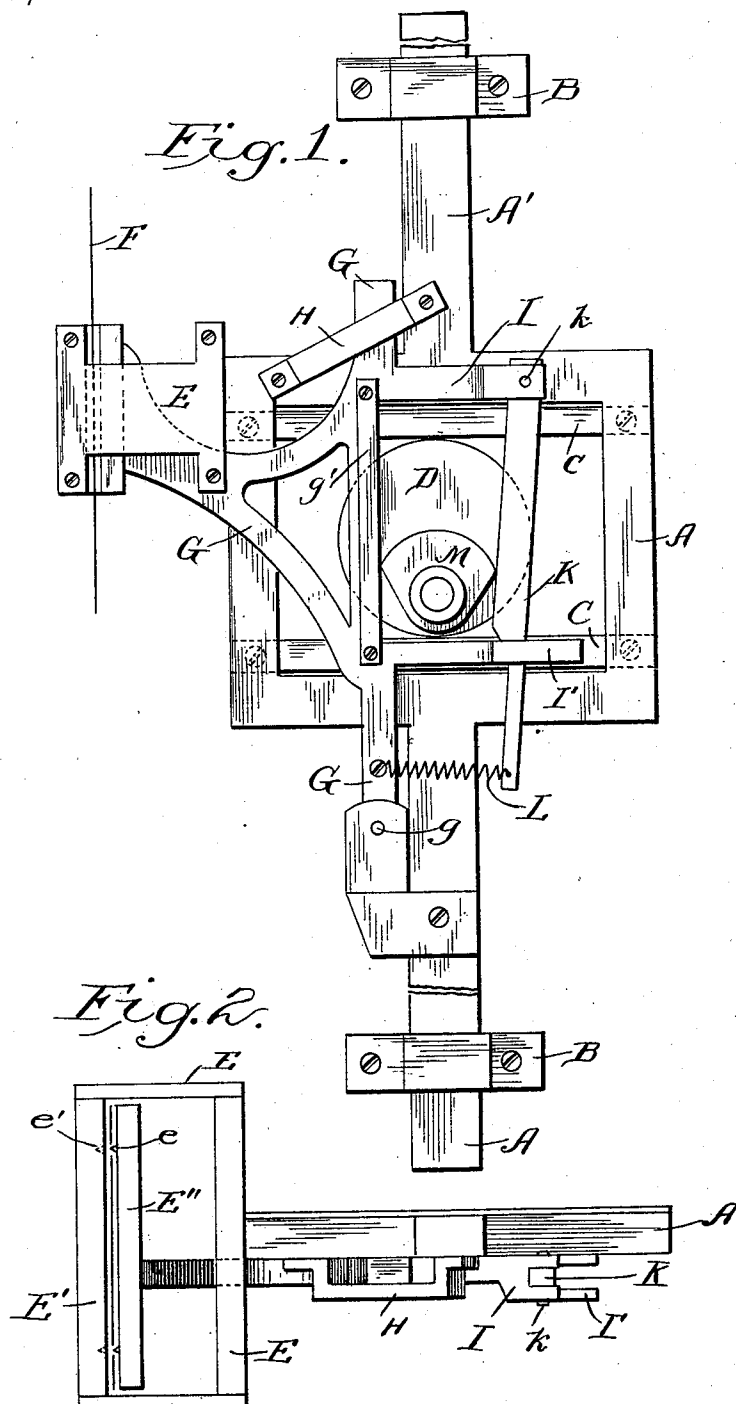


(No Model.)

L. E. HENRIET.
MEANS FOR GUIDING KINETOSCOPIC FILMS, &c.

No. 590,837.

Patented Sept. 28, 1897.



WITNESSES

A. B. Duggan
Jas. A. Richmond

INVENTOR
Louis E. Henriet
by *J. Dittman*
Attorney

UNITED STATES PATENT OFFICE.

LOUIS E. HENRIET, OF NEWARK, NEW JERSEY.

MEANS FOR GUIDING KINETOSCOPIC FILMS, &c.

SPECIFICATION forming part of Letters Patent No. 590,837, dated September 28, 1897.

Application filed April 19, 1897. Serial No. 632,856. (No model.)

To all whom it may concern:

Be it known that I, LOUIS E. HENRIET, a citizen of the United States of America, residing at 39 Division Place, Newark, New Jersey, have invented certain new and useful Improvements in Means for Guiding Kinetoscopic Films; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to apparatus for exhibiting pictures, and more especially to that class of such apparatus in which the impression is given to the eye of objects in motion. In this class of apparatus it is necessary to move intermittently the film carrying the pictures in such manner as to cause the series of pictures thereon to be brought and permitted to remain in the illuminated field for an interval of time exceeding the time required to effect the displacement of any one picture and the substitution of another therefor, and to release the pressure exerted upon the film in the feeding device when the same returns to the position ready to grip the film again. The mechanism employed for this purpose forms the principal object of my invention; and it consists in a movable clamp running in suitable guides while playing to and fro under the action of an eccentric, one jaw of the clamp forming part of a movable frame, while the other jaw is pivoted to said frame and is timely thrown in and out of engagement with the jaw on the frame by means of another eccentric or cam, as will be more fully described hereinafter with reference to the accompanying drawings, in which—

Figure 1 is a front elevation of the improved mechanism, and Fig. 2 a plan view of the same.

A is a frame of any shape, but preferably rectangular, having projecting ends A' A', which are suitably guided in straps B B, and provided with bars of tempered steel or other hardened metal C, against which the edges of the cam D operate, so as to impart to the frame A a reciprocating motion.

E is a frame laterally projecting from the frame A, adapted to form a guide for the film F carrying the pictures. One of the sides of said frame E' forms a jaw against which the

film is pressed while the eccentric D is acting to bring the film down.

The clamping device used for this purpose consists of a frame G, pivoted at *g* to a suitable point of the reciprocating frame A. The upper end of said frame G is imprisoned under a strap H, so as to be guided when the frame G is oscillated on its pivot. An arm I, forming part of the frame G, carries in its forked end an arm K, which is pivoted thereto at *k*, and the lower end of which is guided in the forked portion I' of the frame G, and having the outer end connected to the frame G by a coiled spring L, said coiled spring having a tendency to draw the arm K toward the middle bar of the frame G. A cam M, preferably of the shape as shown in Fig. 1, acts between said middle bar of the frame G (which may be armed with a steel strap or strap of other hard metal *g'*, secured to the frame G) and the spring-actuated arm K, which is also made of hard metal, adapted to stand wear and tear.

The oscillating jaw E' in the frame or box E is secured to a lateral projection of the frame G, as shown, and provided within the edges with teeth *e*, adapted to enter into corresponding depressions *e'* of the jaw E'. The film F passing through is provided within the two edges with two parallel rows of perforations into which the teeth *e* will register.

This mechanism acts in the following manner: The cams D M are secured to a shaft which is constantly revolving. When said cams are in the position shown in Fig. 1, the cam will press the frame G around its pivot, so that the jaw E', with the teeth *e*, enters into the holes in the film, whereupon the cam D commences to act upon the frame A and throwing the same down the film firmly clamped in the box E will be obliged to follow. The arm K, under the influence of the spring L, will lean against the cam M, so that the latter in its reverse position—that is to say, when the cams and shaft have turned for one hundred and eighty degrees—will commence to move the oscillating frame G without any jarring and will disengage the jaw E' from the film, the arm K yielding, as is evident, when the frame G has reached the limit of the guide H. The cam D commences now the upstroke and will move the frame in

the guides B in an upward direction without producing any pressure upon the film, which thus remains in the advanced position. The same play is repeated when a full revolution of the shaft has been effected.

I do not limit myself to the use of the teeth *e*, for I may use in the clamping device a jaw *E'* without depressions and a jaw *E''* without teeth upon a film being non-perforated. In this case it is preferable to line the surfaces of the jaws with soft material—such as rubber, cloth, leather, &c.

Having thus described my invention, I claim—

1. Mechanism for moving picture-carrying strips or films consisting of a main frame, suitably guided and reciprocated by a cam, and of a second frame pivoted to the first and oscillated by a second cam on the same shaft, which carries the first cam, the reciprocating frame carrying a box with one side forming a jaw supporting the film, the second or reciprocating frame carrying a jaw adapted to move within said box against the side supporting the film and thereby clamping the film and forcing the same to follow in the motion, substantially as described and for the purpose set forth.

2. A mechanism for moving picture-carrying strips or film, consisting of a main frame, suitably guided and reciprocated by a cam and

of a second frame pivoted to the first and oscillated by a second cam, said second frame having a pivoted arm provided with a spring at its free end whereby there are formed surfaces for the reaction of the second cam, by which said second frame is oscillated, substantially as described and for the purpose set forth.

3. Mechanism for moving picture-carrying strips or films consisting of a main frame, suitably guided and reciprocated by a cam, and of a second frame pivoted to the first and oscillated by a second cam, the reciprocating frame carrying a box with one side forming a jaw supporting the film, said jaw being provided with depressions or notches corresponding to the perforations at the edges of the film, the second or oscillating frame carrying a jaw adapted to move within the said box against the side supporting the film and being provided with points or teeth adapted to engage the perforations of the film and the depressions in the opposite jaw, substantially as described.

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

LOUIS E. HENRIET.

Witnesses:

LOUIS D. FRENOT,
HENRI VARLET.