

C. E. MORTON.

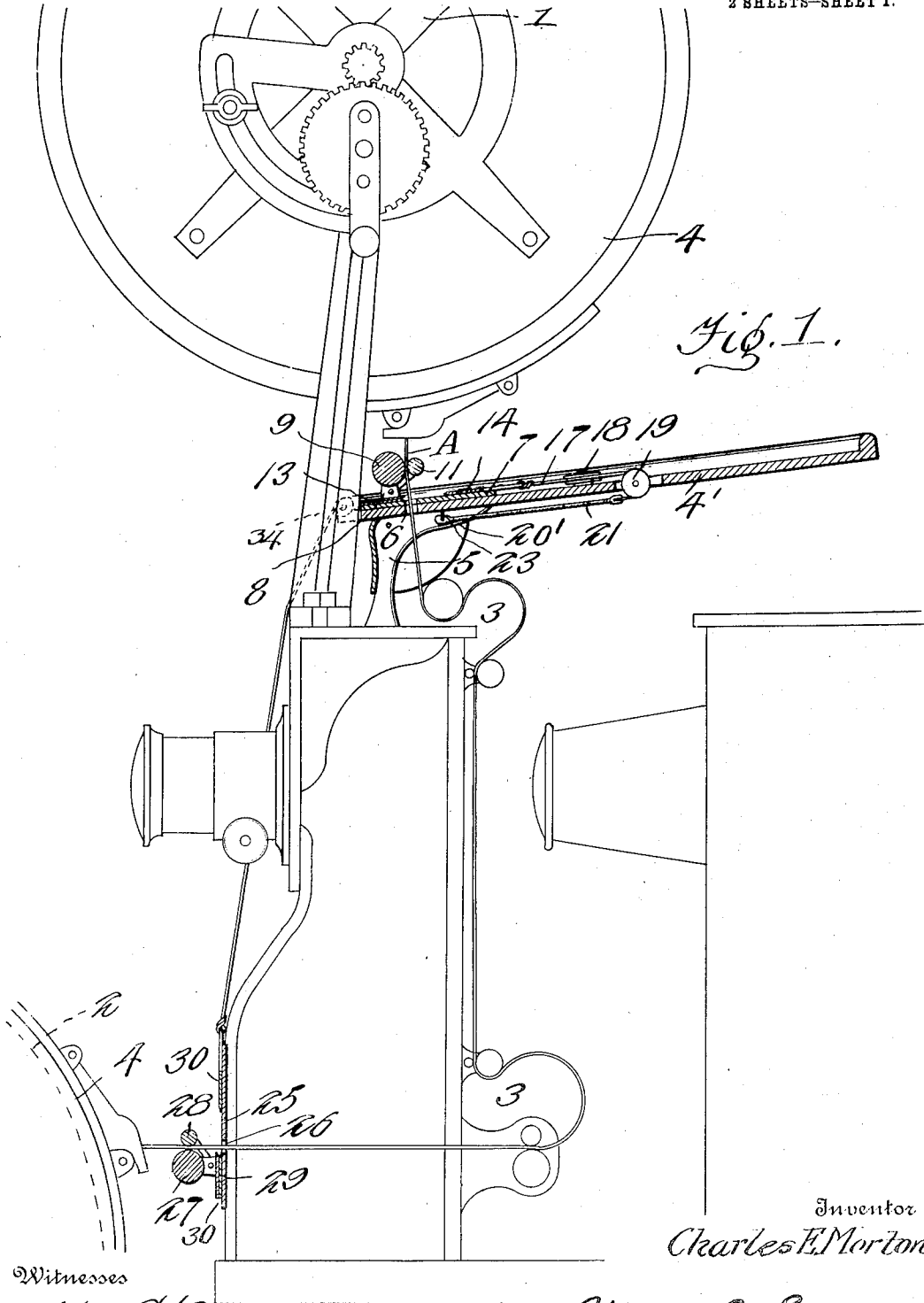
SAFETY ATTACHMENT FOR MOVING PICTURE MACHINES.

APPLICATION FILED MAR. 26, 1910. RENEWED NOV. 5, 1912.

1,061,101.

Patented May 6, 1913.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 2.

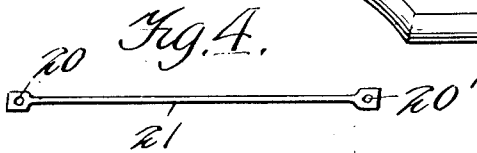
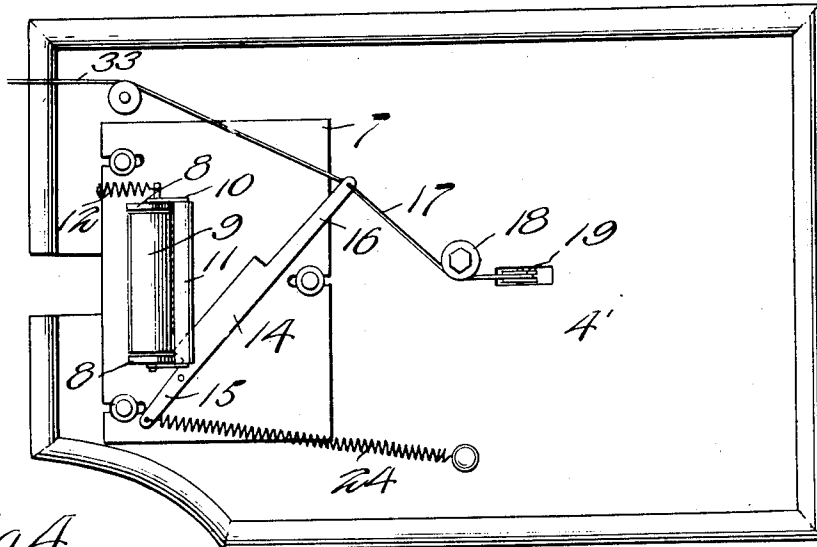
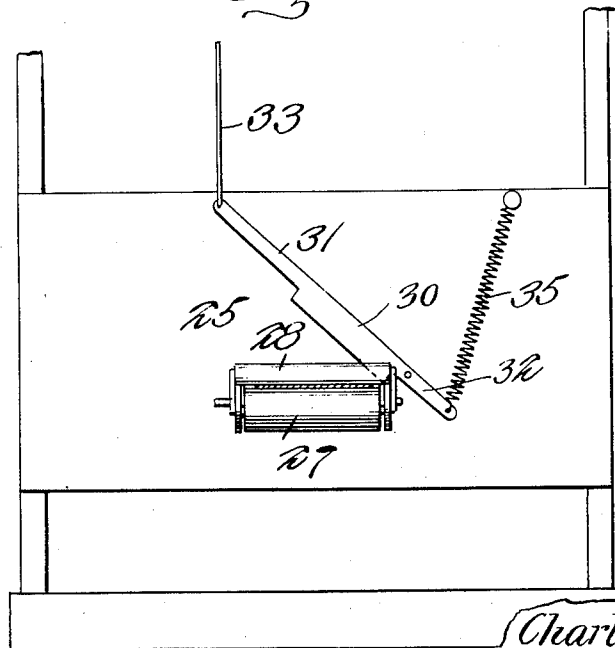


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES E. MORTON, OF EDWARDSVILLE, ILLINOIS.

SAFETY ATTACHMENT FOR MOVING-PICTURE MACHINES.

1,061,101.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed March 26, 1910, Serial No. 551,725. Renewed November 5, 1912. Serial No. 729,858.

To all whom it may concern:

Be it known that I, CHARLES E. MORTON, a citizen of the United States of America, residing at Edwardsville, in the county of Madison and State of Illinois, have invented new and useful Improvements in Safety Attachments for Moving-Picture Machines, of which the following is a specification.

This invention relates to safety devices for moving picture machines or the like, and has for an object to provide means for automatically cutting off such portion of the film that is disposed between the two spools so that after such portion of the film which is disposed between the reels may become accidentally ignited further burning of the film at points beyond the feed mechanism will be prevented.

In the drawings, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a detail side elevation of a portion of a moving picture machine showing my improved mechanism in its applied position thereto. Fig. 2 is a top plan view of the top plate of my safety device. Fig. 3 is a detail front elevation of a portion of the machine showing the front plate of my safety device applied thereto. Fig. 4 is a detail view of the fusible element.

The moving picture machine herein illustrated can be of any desired type and a detail description thereof will not be given, but it may be stated that the machine supports the film spools 1 and 2 which are suitably spaced from each other to accommodate the take-up and feeding mechanism 3. The spools are mounted preferably in metal casings 4 which are slotted to receive the film A.

My improved safety attachment consists of a support 4' which is hingedly connected at its forward end to bracket members 5. The bracket members extend inwardly from that portion of the machine forming the frame or support for the spool 1. The said support 4' has formed therein a slot 6 for receiving the film A, and immediately above the slot and mounted on the support 4' for longitudinal adjustment is a plate 7 in which is formed a slot which is adapted to register with the slot 6. The plate 7 is provided with bracket members 8 upon which a film-guiding roller 9 is supported. Pivoted arms 10 are mounted upon the bracket members 8 and as shown, these arms support a

revolving pressing roller 11 which is normally held against the roller 9 by means of a suitable retractile spring 12, one end of the said spring being secured to the plate 7, as shown. A shearing member 13 is mounted on the plate 7 and as shown, this member consists of spaced plates having their inner edge portions extending across a portion of the slot in the plate 7.

A cutting knife 14 is pivoted adjacent to one of its ends to the plate 7 and as illustrated, the said knife being located immediately behind the film-guiding slot in the plate 7. This knife is formed at its ends to provide arms 15 and 16. The arm 16 is connected to one end of a flexible element 17 which is guided over pulleys 18 and 19 on the support 4' and which extends downwardly through the support where it is connected in the eye portion 20 of a fuse wire 21. The opposite end of the said fuse wire is formed to provide an eye 20' which is engaged with a hook 23 which depends from the support. The fuse wire 21 has its end portions flattened preferably as shown particularly in Fig. 4 of the drawings, and in such flattened portions are formed the eyes 20 and 20' respectively. The arm 15 of the knife 14 is connected with one end of a retractile spring 24, the opposite end of this spring being secured to the support so that the knife will be automatically moved across the film-guiding slot in the plate 7 upon separation of the fuse wire from the flexible connection of the knife.

A support 25 is located immediately behind the spool 2 and in said support is formed a film-receiving slot 26. Directly in front of this slot the support is provided with film-guiding rollers 27 and 28, the former being yieldingly engaged with the latter, as shown. The support 25 carries a shearing member 29 and a pivoted knife 30. The knife 30 is formed to provide arms 31 and 32 and as illustrated, the arm 31 being connected with the arm 16 of the knife 14 by means of a flexible connection 33 which is guided over pulleys 34, one of which is shown in Fig. 2. The arm 32 of the knife 30 is connected with one end of a retractile spring 35, the opposite end of the said spring being secured in any suitable manner to the support 25.

The construction of the safety device as herein set forth and described is such that should that portion of the film which is dis-

posed between the spools 1 and 2 be ignited the flame will of course be confined between the supports 4' and 25 and incident to the location of the hereinbefore described fusible element the latter will be subjected to the flame and destroyed and automatically released from the flexible connection 17. Upon release of the fusible element from the flexible connection 17 the knives 14 and 30 respectively will be moved across the hereinbefore film-guiding slots and into coöperation with their shearing heads to effectively sever the exposed portions of the film from such portions that are wound upon the spools 1 and 2. The peculiar construction and design of the fusible element is such that will permit the operator of the machine after the utilization of the fusible element to install a new one without noticeable delay. The fusible elements are inexpensive to manufacture and while forming the essential feature of the invention are constructed with a view of enabling the operator of a moving picture machine to carry a number of them in his pocket where they may be conveniently had at time of emergency.

I claim:—

In a safety attachment for moving picture machines, a moving picture machine including the film magazine and winding reels,

a support pivotally mounted to the machine beneath the magazine reel and provided with a film guiding slot therein, a second support mounted on the front of the machine below the plane of the first support and in line with the winding reel, the second support having a film guiding slot therein, a movable knife on each support, springs operatively connected with the knives and tending to move them across the film guide slots, a hook located beneath the first support and located in rear of the film as the latter leaves the guiding slot in said first support, a fuse disposed beneath the first support and having one of its ends fitted to the said hook, and a flexible element having one of its ends secured to the opposite end of the fuse, the said element being movably extended over the first support and connected with the knife thereon and then extended downwardly over the first support and connected with the knife of the second support whereby both of the knives are held against the tension of the said springs.

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

CHARLES E. MORTON.

Witnesses:

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GEO. BUCHTA.