

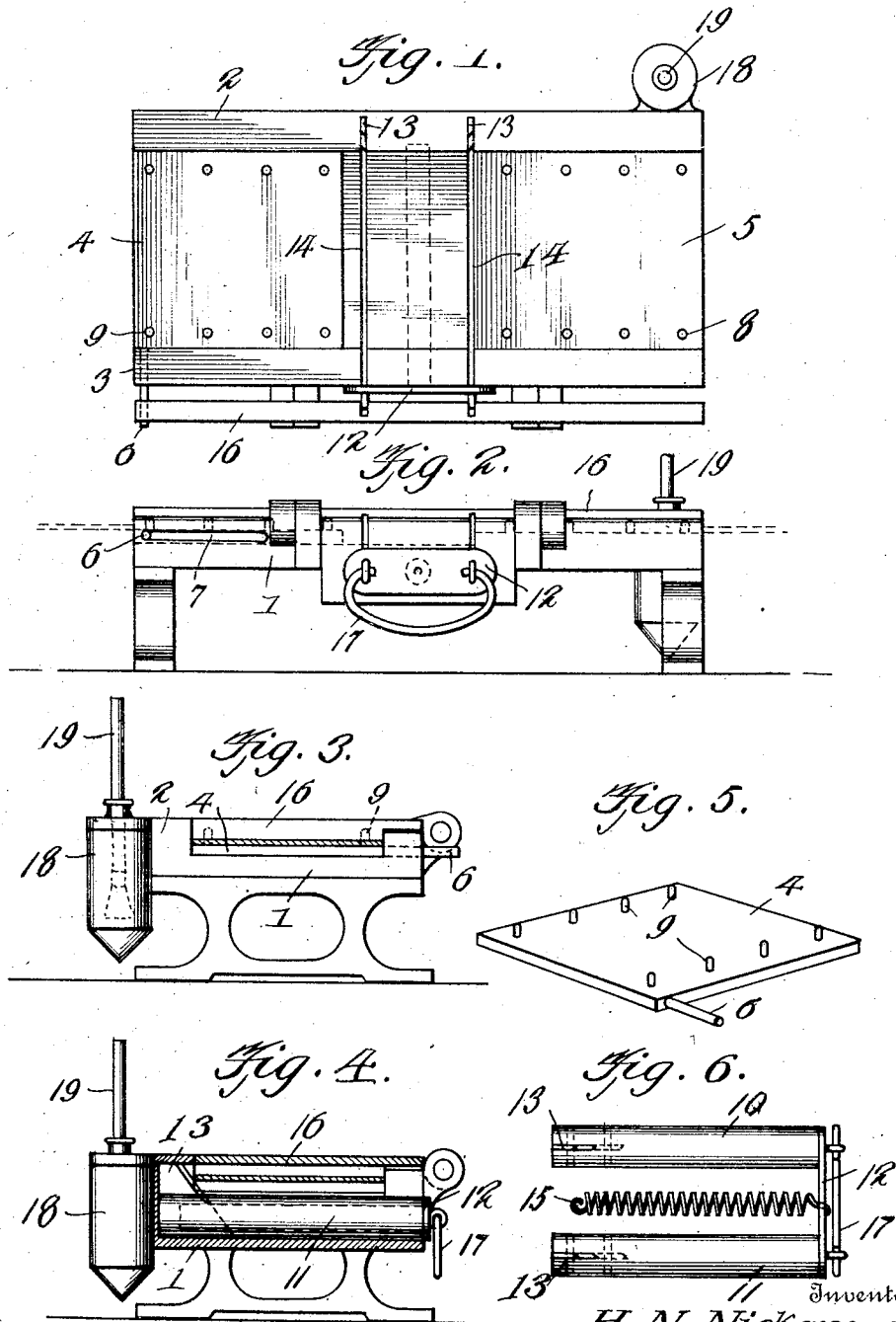
H. N. NICKERSON & W. J. COUSINS.

FILM MENDING DEVICE.

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962,381.

Patented June 21, 1910.



Witnesses

Frank B. Hoffman
James A. Toehl

Inventors
H. N. Nickerson and
W. J. Cousins

By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

HUGH N. NICKERSON AND WILLIAM J. COUSINS, OF PONTIAC, MICHIGAN.

FILM-MENDING DEVICE.

Specification of Letters Patent. Patented June 21, 1910.

962,381.

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To all whom it may concern:

Be it known that we, HUGH N. NICKERSON, a citizen of the United States of America, and WILLIAM J. COUSINS, a subject of the King of Great Britain, residing at Pontiac, in the county of Oakland and State of Michigan, have invented new and useful Improvements in Film-Mending Devices, of which the following is a specification.

This invention relates to film mending devices, and has for an object to provide a device of this character which will be constructed with a view of enabling the operator of a moving picture machine to conveniently and quickly mend a broken film, means being provided whereby the film perforations will be spaced from each other at the sides of the joint formed by the broken ends to accurately receive the teeth of the driving cogs.

In the drawing, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a top plan view of our improved film mending device with the pressing head raised. Fig. 2 is a front elevation of the same. Fig. 3 is an end view. Fig. 4 is a detail transverse section taken through the device. Fig. 5 is a detail perspective view of one of the movable film-supporting members. Fig. 6 is a detail plan view of the knife carrier.

Our improved film-mending device consists of a fixed support which is preferably in the form of a table 1 which is provided with spaced guide members 2 and 3. The table supports companion film-retaining and supporting means which consists of companion members 4 and 5. The member 4 is movable on the table toward or away from the member 5. This member is provided with an outwardly extending pin 6 which extends through an elongated longitudinally extending slot 7 in the guide member 3 of the table. It will be seen that the construction as described in the foregoing permits the member 4 to be moved on the table so that its inner edge will abut the inner edge of the member 5. The member 5 is formed adjacent its side edges with vertical pins 8 which are adapted to receive the usual perforations formed in films of the ordinary type. The member 4 is provided with vertically extending pins 9 which are disposed in line with the pins 8 upon the member 5. The pins upon the members 4 and 5 which

are located nearest the inner abutting edges of the said members are so arranged that when the members abut each other the innermost pins will be spaced from each other at distances apart equal to the distances between the remaining pins on the members 4 and 5.

A movable knife carrier is carried by the table and it consists of spaced cylinders 10 and 11 which are connected with each other by a head 12. The cylinders 10 and 11 are mounted to slide in correspondingly formed passages in the table and as shown, each cylinder is provided with a vertical knife 13. The knives 13 are disposed in transversely extending slots 14 which are formed in the table. A spring 15 connects the table with the head 12 of the knife carrier to normally hold the knives in the position shown in Fig. 1 of the drawing.

The table has hinged mounted thereon a pressing head 16 which may be folded to lie directly upon the members 4 and 5. The knife-carrying member is provided with a suitable handle 17 which may be grasped by the hand of the operator to move the carrier against the tension of the spring 15. The table is provided adjacent to one of its corners with a suitable glue-pot 18 in which is mounted a brush 19. In operation when it is desired to mend a broken film the severed ends of the film are mounted upon the members 4 and 5 of the table and the portions of the film which are exposed beyond the inner edge of the member 4 are cut off by the knives 13. One of the knives 13 is located substantially flush with the inner edge of the member 5. The film end which is mounted on the member 5 can be adjusted on the table so that the portion beyond the inner edge of the said member can be accurately severed by the knife 13 adjacent to the said member. The construction described is such that the broken film can be conveniently spliced to effectively connect the broken ends, the construction also permitting the operator to so mend the film that the perforations at the sides of the splice will be spaced from each other to equal the distances between the remaining perforations. In this manner when the broken film is again run through the machine the spliced portion of the film can be accurately engaged with the driving cogs and the film held against further mutilation. After the ends of the film beyond

the inner faces of the members 4 and 5 have been severed from the remaining portions of the film the member 4 can be moved upon the table until it abuts the member 5. The meeting ends of the film can then be treated with a suitable cement, after which the pressing head 16 can be moved against the film as will be understood.

We claim:—

1. A film mending device including relatively movable tables, means carried by each of the tables for fixedly positioning the film ends thereon, and means for limiting the movement of the tables toward each other to arrange the film ends in such relative positions as to insure a uniform continuity of the perforations across the break in the film.
2. A film-mending device comprising a table, a stationary member mounted on the table, a movable member mounted upon the table, a knife carrier having a pair of knives adapted to be moved transversely of the table and between the inner edge portions of the said members, pins extending from the members for receiving the perforations of the film, and a pressing head carried by the table and adapted to be pressed against the said members.
3. A film-mending device comprising a table, film-supporting means upon the table, a pressing head adapted to be moved against the supporting means, and movable knives

adapted for movement transversely of the table at points inwardly of the inner ends of the film-supporting means.

4. A film-mending device comprising a fixed member, a movable member adapted to be moved toward or away from the fixed member, pins extending from the members adapted to be engaged in the perforations of the film, and knives movable between the said members.

5. A film-mending device comprising a table, film-supporting means for supporting the broken ends of the film, trimming knives movable transversely of the table, and a pressing head adapted to be pressed against the said film-supporting means.

6. A film mending device including relatively movable members, means carried by each of the members for fixedly positioning the film ends thereon, and means for limiting the movement of the members toward each other to arrange the film ends in such relative positions as to insure a uniform continuity and spacing of the perforations across the break in the film.

In testimony whereof we affix our signatures in presence of two witnesses.

HUGH N. NICKERSON.
WILLIAM J. COUSINS.

Witnesses:

JOSEPH E. SAWYER,
GEORGINA M. BRONDICE.