

Aug. 4, 1936.

E. I. SPONABLE

2,049,523

SPLICED FILM AND METHOD OF PRODUCING THE SAME

Filed May 15, 1929

FIG. 1.

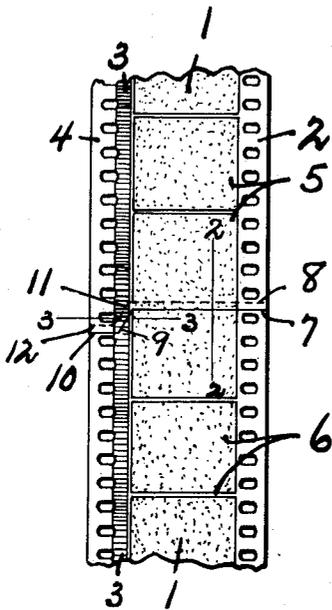
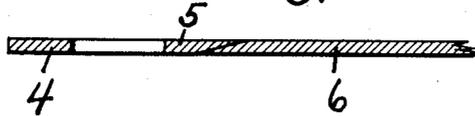


FIG. 2.



FIG. 3.



WITNESS.
H. W. Smith

INVENTOR.
E. I. Sporable
BY
Devision Sampson
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,049,523

SPliced FILM AND METHOD OF
PRODUCING THE SAMEEarl I. Sponable, New York, N. Y., assignor, by
mesne assignments, to Movietone News, Inc., New
York, N. Y., a corporation of New York

Application May 15, 1929, Serial No. 363,223

16 Claims. (Cl. 274—41.6)

This invention relates to certain new and useful improvements in spliced film.

In the use of film it is very often necessary to splice the film or secure two longitudinal sections together, and in connection with moving picture film this condition produces no ill effect, but when a narrow sound track is provided at one edge of the picture framing for the reception of a photographic record of light waves varied in accordance with sound waves, a splice across the sound track portion produces a click or undesirable noise when the sound record is reproduced in the usual manner.

The main object of this invention is the production of a splice in a combined moving picture and sound record film by means of which the click resultant from the usual splice is eliminated.

Other objects and advantages relate to the details of the spliced film, all as will more fully appear from the following description taken in connection with the accompanying drawing, in which:

Figure 1 is a plan view of a section of a spliced film of this invention.

Figure 2 is an enlarged section on line 2—2, Figure 1.

Figure 3 is an enlarged section on line 3—3, Figure 1.

The film as shown in Figure 1 comprises a moving picture portion 1, the sections of which when the pictures have been taken thereon may have the usual framing indicated.

At one edge of this framing there is provided the usual sprocket hole section 2. Bordering the other edge of the picture section 1 is a narrow sound track 3 indicated as having a sound record produced thereon and at the outer edge of the sound track 3 there is the usual sprocket hole section 4.

In the splicing of moving picture film it has been common to provide a splice extending across the film at right angles to the length of the film, but as above stated, when such a splice extends across a sound track a click results when the record is reproduced by the usual reproducing devices.

This invention eliminates or substantially eliminates the production of such undesirable noises in reproduction and for that purpose the splice may be formed as illustrated in Figure 1.

The adjacent edges of the two sections of film indicated at 5 and 6 are of complementary form. The edge of both sections may be cut or formed along straight lines indicated at 7

and 8 respectively, which are perpendicular to the length of the film or to a longitudinal edge of the film. When the sound track is reached, the section 5 is cut diagonally from the termination of the line 7 across to the opposite edge of the sound track to form a projecting triangular sound track portion, as along the line 9.

This diagonal cutting of the sound track portion may form an angle of approximately 45 degrees or less with the line bordering the inner edge of the sound track.

The sprocket hole portion 4 may be cut straight across on a line parallel with the line 7, as indicated, by line 10. The section 6 is formed with a complementary edge, i. e. it may be cut across the picture portion 1 and the sprocket hole portion 2 along a straight line 8 perpendicular to the edge of the film. The sound track 3 is then cut diagonally on line 11 parallel with line 9, but extending rearwardly into the body of the film rather than forming a projection from the film to provide a cut-away portion of the sound track in the section 6 complementary to the extension of the sound track formed on the section 5.

The sprocket hole strip 4 on section 6 may then be cut straight across as on line 12 parallel with line 8. The so formed edges of film sections 5 and 6 are preferably beveled, as indicated in Figure 2, and Figure 3, and the beveled sections are placed in overlying relation and secured together by any suitable adhesive or otherwise, as may be desirable.

It will be apparent that with this construction the splice extends straight across the picture section on a line perpendicular with the longitudinal edge of the film, and that the splice extends diagonally across the sound track portion preferably on an angle of substantially 45 degrees or less with a line drawn lengthwise of the inner edge of the sound track. The splice may then extend along straight lines laterally to the edge of the film across the sprocket hole section 4 on a line parallel with the splice across the picture section 1 but displaced therefrom lengthwise of the film.

It is found that with a splice of this form the usual click resultant from a lateral splice in a sound record is eliminated or substantially eliminated, and no interruption or undesirable noise occurs when the spliced portion of the sound track passes the usual reproducing line of light.

Altho I have shown and described a specific form of splice and specific shapes of the complementary edges of the film sections at the splice,

I do not desire to restrict myself to the exact form shown, as various changes and modifications may be made within the scope of the appended claims.

5 I claim:

1. A spliced moving picture sound record film in which the splice extends substantially perpendicular to the side edge of the film across the picture portion of the film and diagonally with respect to the side edge of the film across the sound track portion thereof. 10
2. A spliced moving picture sound record film in which the splice extends substantially perpendicular to the side edge of the film across the picture portion of the film and diagonally at an angle of substantially forty-five degrees or less to the line constituting the lengthwise inner edge of the sound track across the sound track portion. 15
3. A spliced film comprising a moving picture portion, a narrow sound record portion extending longitudinally of the film at one edge of the picture portion and opposite edge sprocket hole portions, the spliced sections having their adjacent edges beveled and secured together and the joined edges of the spliced sections extending substantially perpendicular to the side edge of the film across the picture portion thereof and obliquely disposed with respect to the side edge of the film across the sound track portion thereof. 20
4. A spliced film comprising a moving picture portion, a narrow sound record portion extending longitudinally of the film at one edge of the picture portion and opposite edge sprocket hole portions, the spliced sections having their adjacent edges beveled and secured together and the joined edges of the spliced sections extending substantially perpendicular to the side edge of the film across the picture portion thereof and extending at an angle of substantially 45 degrees or less with respect to the line constituting the inner edge of the sound track portion across the sound track portion. 25
5. A spliced sound picture film in which the splice extends diagonally, with respect to the side edge of the film, across the sound track portion thereof whereby undesirable noise, due to the splice, is obviated. 30
6. A spliced film having picture sections thereon and a sound record section having a sound record thereon, said splice extending the full width of the film and across the picture section in a direction substantially normal to the side edge of the film and then across the sound record section, diagonally with respect to the side edge of the film whereby undesirable noise is eliminated at the splice during reproduction of sound from the sound record portion of the film. 35
7. A spliced film having a sound track with a photographic record of transverse lines corresponding to sound waves thereon and in which the splice extends in a direction out of line with the lines constituting the sound record. 40
8. A spliced film having a sound track with a photographic record corresponding to sound waves thereon and in which the splice extends in a direction out of line with a line normal to the side edge of the film. 45
9. A spliced sound record film, that portion of the film bearing the sound record having overlapping oblique ends. 50
10. The method of splicing films having photographic sound record bands thereon, which comprises cutting the films obliquely through the record bands thereof and securing the ends of the films together with the respective record bands in alignment and in abutting relation and with the surfaces of said secured ends lying respectively in substantially the same respective planes. 55
11. The method of splicing films having photographic sound record bands thereon, which comprises cutting the films obliquely through the record bands thereof and securing the ends of the films together with the respective record bands in alignment and in abutting relation and with the sound track surfaces at the splice substantially aligned with each other. 60
12. The method of splicing films having photographic sound record bands thereon, which comprises cutting the films obliquely through the record bands thereof and securing the ends of the films together with the respective record bands in alignment and in abutting relation and with the thickness of the splice substantially the same as that of the remainder of the film.
13. The method of splicing films having photographic sound record bands thereon, which comprises cutting the films obliquely through the record bands thereof and securing the ends of the films together with the respective record bands in alignment and in abutting relation and with substantially the entire end surface of one film end abutting substantially the entire end surface of the other at the splice.
14. The method of splicing a film having a sound track thereon, which comprises cutting across the sound track obliquely to the edges of said film and securing the ends to each other.
15. The method of splicing a film having a sound track thereon, which comprises cutting across said film perpendicular to its edges at points on opposite sides of the sound track and across said sound track obliquely to said edges and securing the ends to each other.
16. The method of splicing a film having a sound track thereon, which comprises cutting across the sound track obliquely to the edges at points on opposite sides of the sound track and bevelling the cut ends and securing them to each other.

EARL I. SPONABLE. 60