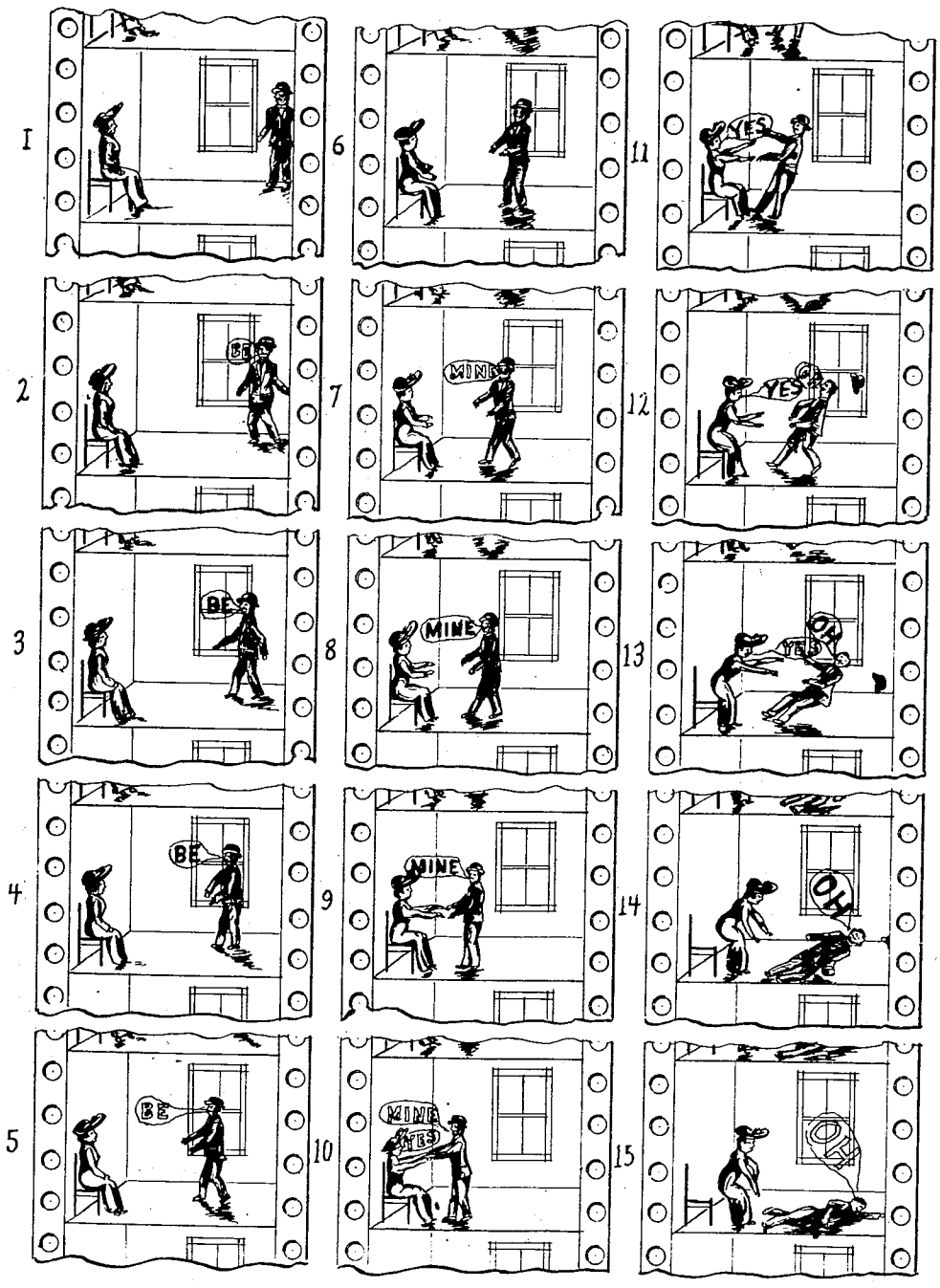
T. DE ROODE.

MOVING PICTURE-FILM.

APPLICATION FILED NOV. 12, 1915.

1,324,235.

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MOVING-PICTURE FILM.

1,324,235. Specification of Letters Patent. Patented Dec. 9, 1919.

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To all whom it may concern:

Be it known that I, TRIMBLE DE ROODE, a subject of the Queen of Holland, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Moving-Picture 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 the production of films for use in projecting pictures of objects in motion and is directed to the provision of a film of a novel character whereby moving picture representations may be more readily understood, whereby new effects in moving picture productions may be secured and whereby the use of inserts of printed matter explanatory of the action depicted in the pictures is made unnecessary.

The invention involves the provision of a moving picture film consisting of a succession of pictures of moving objects and including a series of successive pictures which have words thereon representing sounds emanating from the persons or other objects depicted in the pictures. The words may represent sounds occasioned by inaminate objects, such, for instance, as a falling body or an explosive, or they may represent words spoken by persons depicted in the pictures.

A film of the character contemplated by the invention may be employed for the representation of scenes which cannot now be satisfactorily depicted without resort to frequent inserts of printed matter because the action represented by the pictures would not be understood without the aid of the explanatory inserts. As is well recognized, the use of such inserts of printed matter is objectionable and therefore it has been the effort of makers of moving picture films heretofore to reduce the number of such inserts as much as possible or eliminate them entirely. Again, it is often desirable to communicate to an audience witnessing a moving picture reproduction a conversation or the salient features of a conversation between characters depicted in the pictures simultaneously with the production of the pictures so that the spoken words will be understood by the audience as the actions accompanying them are seen. By means of films made in accordance with the present invention, words spoken by the characters depicted may be displayed upon a screen along with the representations of the characters themselves. Again, by displaying a word or a few words in conjunction with the movement or movements of inaminate objects, those movements or the effect thereof may be much more readily communicated to an audience witnessing the reproduction of pictures and often comic scenes may be depicted which would not be fully appreciated if only the objects themselves and their movements were represented.

In accordance with the invention, the film is produced by taking a multiplicity of pictures of moving objects by photography and superimposing upon a series of successive pictures words indicating the sounds emanating from the objects depicted. In the case of words spoken by the characters depicted, such words would be positioned close to the character speaking them so that it would be apparent which one of the several charcters depicted spoke the words represented. By producing the pictures by photographing actual objects in motion as distinguished from photographing a series of drawings varied successively to produce the effect of motion, more realistic representations of the objects depicted may be obtained and the characters photographed may be made to speak the words which are subsequently superimposed upon the pictures, as a result of which the actions and expressions of the characters will be more appropriate to the words to be displayed in connection with those pictures.

I have found that superior effects can be obtained by progressively changing the position of the printed words upon successive pictures of the series upon which the words are produced. Thus, in the case of words spoken by a person represented in the pictures, the words may be so arranged upon successive pictures that when the pictures are projected, the words will appear to move away from the speaker. If the speaker is moving in one direction, the words may be so arranged that they will appear to move in the same direction but at a greater rate, in which case they will appear to recede from the speaker. If the speaker be moving in the opposite direction, the position of the words may remain unchanged but the same effect will be produced in that the words will appear to move from the speaker.

Again, the words produced upon a succession of pictures may be made to increase in size so as to give the effect of a rising inflection or a sound of increasing intensity.

I have found also that the strain upon the eyes of an audience witnessing the reproduction of moving picture films displaying words in addition to representations of moving objects may be reduced by having the words first appear upon the screen indistinctly and become more distinct in successive pictures until the desired degree of definition of the words has been reached. Similarly, it is objectionable to have the reproduction of the words cease abruptly and I therefore arrange the words upon the film so that the projection thereof decreases in distinctness progressively through several successive pictures and then disappears.

These and other features of the invention will be better understood by reference to the following description taken in connection with the accompanying drawing. The drawing represents a series of pictures constituting a moving picture film, broken away so as to show fifteen of the many pictures of the film, it being understood that certain additional pictures appear between each pair of adjacent pictures represented in the drawing. The fifteen pictures illustrated are numbered consecutively.

The series of pictures illustrated in the drawing represents two characters, one of which enters from the right and proceeds toward the other who is seated at the left. As the man proceeds from the right toward the left, he addresses the character at the left and the words spoken by him are superimposed upon the film so that they will be reproduced by projection upon the screen. The several pictures of the film are prepared by taking a series of moving picture photographs of the persons represented. After the pictures have been so taken and the negatives developed, the words spoken by the characters are superimposed upon the negatives of the pictures and any desired number of positives is prepared from the negative. Or, the words may be superimposed upon the positive film after it has been prepared from the negative. In either case, the pictures are produced by a photographic process and the words are superimposed upon the pictures, preferably after the preparation of the pictures themselves has been completed.

Two or more pictures are supposed to intervene between the first and second of those illustrated on the drawing. The second picture illustrated has the letters of a word superimposed thereon adjacent to the character at the right who is supposed to speak that word. This being the first picture of the series upon which that word appears, the word is made to appear indistinctly as by showing the letters in outline only. In the pictures following the second, the letters of the word become more definite so that in the third picture illustrated the letters of the word are solid letters which will cause the projection of that word to be shown with its full degree of definition. After the word has been displayed with the full degree of distinctness for the requisite time interval, as it will be by means of the third and fourth pictures illustrated and the several pictures supposed to intervene between them, the representation of the word becomes less distinct again, as is indicated in the fifth picture where the letters of the word are shown in outline only.

By printing the words upon the several pictures in this manner, when the film is reproduced by projection, the word will first appear indistinctly, will then grow to its full degree of definition and thereafter will decrease in distinctness until it finally disappears at the time of producing the sixth picture shown in the drawing.

By reference to the second, third and fourth pictures in the drawing, it will be noted that the position of the word displayed thereon changes in successive pictures so that it appears to move from the character speaking that word. In this instance, the character is shown as moving across the picture and the position of the word is made to change so that the word moves across the picture in the same direction as that in which the character is moving but at a higher rate so that in the projection of the pictures, the word will appear to recede from the speaker. This progressive change in the position of the spoken word aids in producing the desired impression, that is, in indicating which of the characters speaks the word represented and the action which accompanied the speaking of that word.

The sixth, seventh, eighth and ninth pictures of the series illustrated in the drawings show the second word spoken by the character at the left and represent that word in the manner above described so that the word will initially appear indistinctly, will thereafter increase progressively in distinctness and finally, after it has been displayed for the requisite time interval, will decrease in definition so as to fade from sight rather than disappear abruptly. Also, as above described, the position of the word is caused to change upon successive pictures so that in the reproduction of the pictures upon the screen the word will appear to move away from the speaker.

The tenth, eleventh, twelfth and thirteenth pictures represented in the drawing, together with the several pictures intervening between them have imprinted thereon a word spoken by the character at the left of the picture. This word is also displayed

in such manner as to cause it to appear faintly, grow in distinctness progressively in successive pictures and then fade away. Also, this word is so positioned upon successive pictures that in the reproduction of the pictures, the word appears to move away from the speaker. The last four pictures represent a word spoken by the character at the right while he is moving toward the right. In this instance as in the others, the position of the word in the several successive pictures is so selected as to cause the word to appear to recede from the speaker. As the speaker is then moving toward the right, the actual position of the word with reference to the border of the picture may remain unchanged but the desired effect will be produced in that the distance between the word and the speaker will progressively increase in successive pictures.

In each of the representations above described, the word imprinted upon the pictures may be caused to increase in size in successive pictures to represent a rising inflection or an increasing volume of sound or a sharp or unusually loud noise. This is best illustrated in the case of the last four pictures illustrated where the word spoken by the character at the right is shown as progressively increasing in size so as to convey the impression of an increase in sound intensity.

While I have illustrated and described the features of the invention in connection with pictures of people, it must be understood that they may also be employed in connection with films showing inanimate objects to represent sounds emanating from such objects. For instance, in the reproduction of a series of pictures showing a falling body and unaccompanied by words, it might not be apparent at once to an audience that the dropping of the body upon the floor or ground was accompanied by a loud and sharp noise. The desired impression would be conveyed instantly if the reproduction of the pictures included the word "Bang" or a word of similar import close to the point of impact of the falling body, and moving from that point progressively in successive pictures and increasing in size in successive pictures.

It will be noted that in the drawing the pictures are shown as arranged to display a sentence spoken by one of the characters word by word. This is the procedure which I prefer to employ. One word of the sentnce is produced alone and continued through a series of successive pictures, the word first appearing indistinctly, then being displayed distinctly through a succession of pictures and finally becoming indistinct and disappearing. Then the next word of the sentence is displayed in like manner through a series of pictures, then the third word through a third series of pictures and so on. Each word is displayed distinctly during the projection of the pictures representing the action indicated by that word and at least long enough to permit the audience to read it and then the next word of the sentence is displayed. In this way, a very realistic effect may be produced as the spectator not only witnesses the actions of the characters depicted but also realizes what the characters say. If desired, the words spoken by the characters may be produced a sentence at a time, particularly if the sentences be short, but I prefer the former procedure for the reasons that when a sentence is displayed as a whole, it must endure through a longer series of pictures and the correspondence between the actions of the characters and the individual words is less apparent.

What I claim is:

1. A motion picture film comprising a multiplicity of photographs of actual characters in motion, the said photographs being arranged in sequence, a series of successive pictures in the sequence which show the characters in motion having words thereon representing sounds emanating from the characters depicted, said words being associated in the picture with the character from whom they are supposed to emanate, and the positions of the word or words in the several pictures of the series being changed progressively in successive pictures so that when the film is projected the word or words appear to move in the picture as the character speaking moves.

2. A motion picture film comprising a multiplicity of photographs of actual characters in motion, the said photographs being arranged in sequence, a series of successive pictures in the sequence which show the characters in motion having words thereon, and the positions of the word or words in the several pictures of the series being changed progressively in successive pictures so that when the film is projected the word or words are displayed adjacent to the character from which they are supposed to emanate and appear to move in the picture away from the mouth of the character speaking.

3. A motion picture film comprising a multiplicity of photographs of actual characters in motion, the said photographs being arranged in sequence, a series of successive pictures in the sequence which show the characters in motion having words thereon representing sounds emanating from the characters depicted, and the positions of the word or words in the several pictures of the series being changed progressively in successive pictures so that when the film is projected the word or words appear to move in the picture as the character speaking moves but at a different rate from that at

which that character moves, whereby the word or words appear to move away from the character speaking.

4. A motion picture film comprising a multiplicity of photographs of actual characters in motion, the said photographs being arranged in sequence, a series of successive pictures in the sequence which show the characters in motion having words thereon such that when the pictures are displayed, the words are displayed successively to form sentences indicating what the characters depicted are supposed to say, and the positions of the words in the several pictures of the series being arranged progressively in successive pictures so that when the film is projected, the words appear to move in the pictures away from the mouth of the character speaking.

5. A motion picture film comprising a multiplicity of photographs of actual characters in motion, the said photographs being arranged in sequence, a series of successive pictures in the sequence which show the characters in motion having words thereon representing sounds emanating from the characters depicted, and the representations of a word or words upon successive pictures of the series being such that when the pictures are projected, the word or words first appear indistinctly, then become distinct by progressive steps, and at the end of the series of pictures become indistinct by progressive steps.

6. A motion picture film comprising a multiplicity of photographs of actual characters in motion, the said photographs being arranged in sequence, a series of successive pictures in the sequence showing the characters in motion having words thereon representing sounds emanating from the characters depicted, and the representations of a word or words upon the pictures changing in size upon successive pictures of the series.

7. A motion picture film comprising a multiplicity of photographs of actual characters in motion, the said photographs being arranged in sequence, said film having a series of successive pictures showing the characters in motion, each of said successive pictures having on the body thereof words descriptive of the action portrayed and indicatively associated with the character from whom they are supposed to emanate, the relative positions of the word or words and the character with whom they are associated being progressively changed in successive pictures so that when the film is projected the word or words appear in the picture to move away from the character.

8. A motion picture film comprising a multiplicity of photographs of actual characters in motion, the said photographs being arranged in sequence, said film having a series of successive pictures showing the characters in motion, each of said successive pictures having on the body thereof words descriptive of the action portrayed and indicatively associated with the character from whom they are supposed to emanate, the representations of the word or words upon successive pictures of the series being such that when the film is projected the word or words first appear indistinctly and then become distinct by progressive steps and then gradually fade away.

9. A motion picture film comprising a multiplicity of photographs of actual characters in motion, the said photographs being arranged in sequence, said film having a series of successive pictures showing the characters in motion, each of said successive pictures having on the body thereof words descriptive of the action portrayed and indicatively associated with the character from whom they are supposed to emanate, the relative positions of the word or words and the character with whom they are associated in the several pictures of the series being progressively changed in successive pictures so that when the film is projected the word or words appear in the picture to move relatively away from the character, the representations of the word or words upon successive pictures of the series being further such that when the film is projected the word or words first appear indistinctly and then become distinct by progressive steps, and then gradually fade away.

In testimony whereof I affix my signature.

TRIMBLE DE ROODE.