

M. FLEISCHER.
 METHOD OF PRODUCING MOVING PICTURE CARTOONS.
 APPLICATION FILED DEC. 6, 1915.

1,242,674.

Patented Oct. 9, 1917.

2 SHEETS—SHEET 1.

Fig-1-

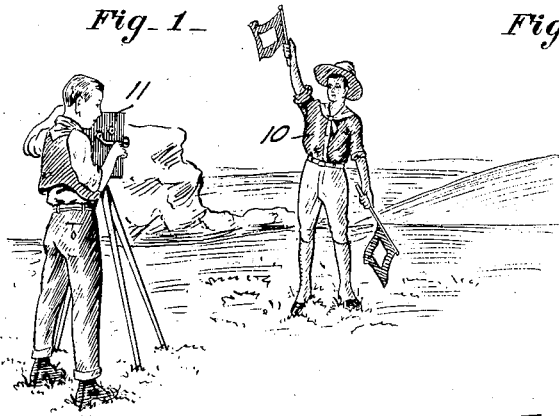
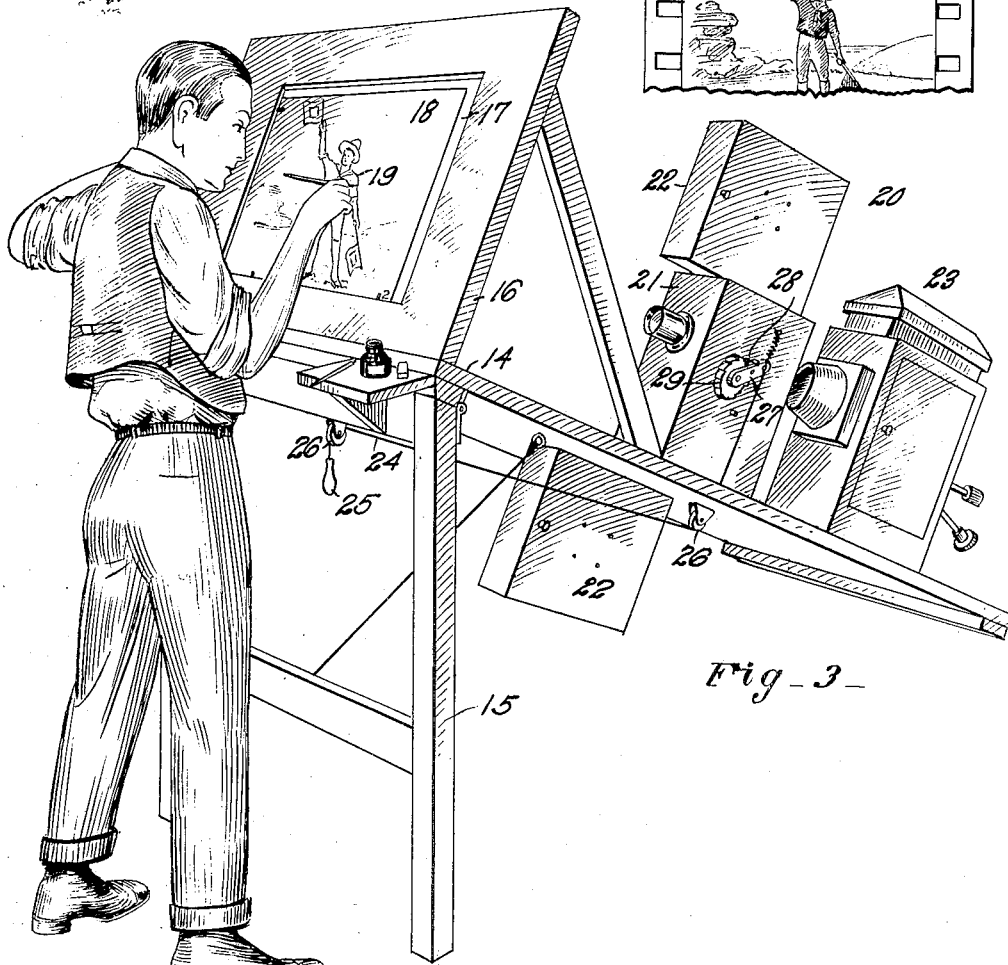
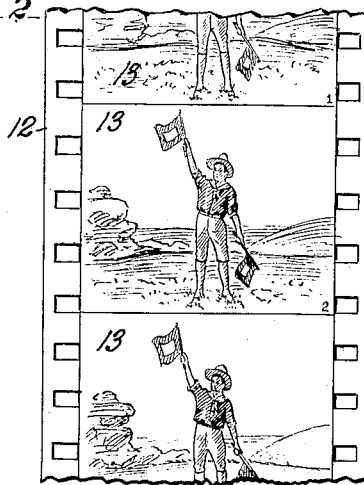


Fig-2-



WITNESSES

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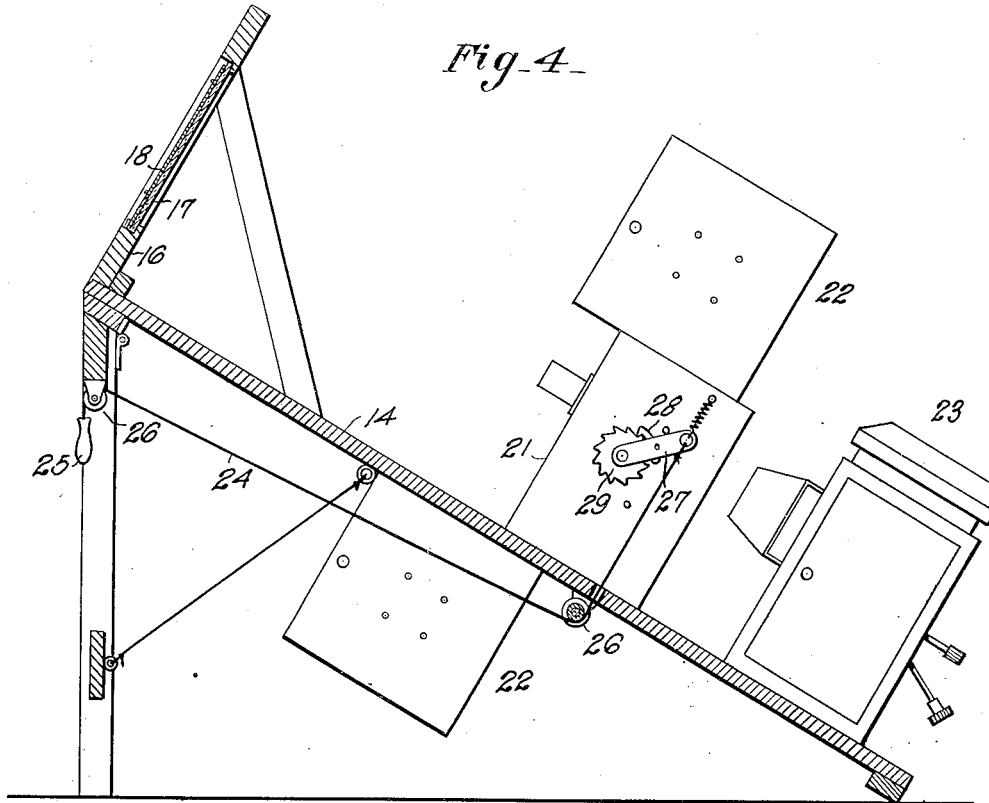


Fig-4-

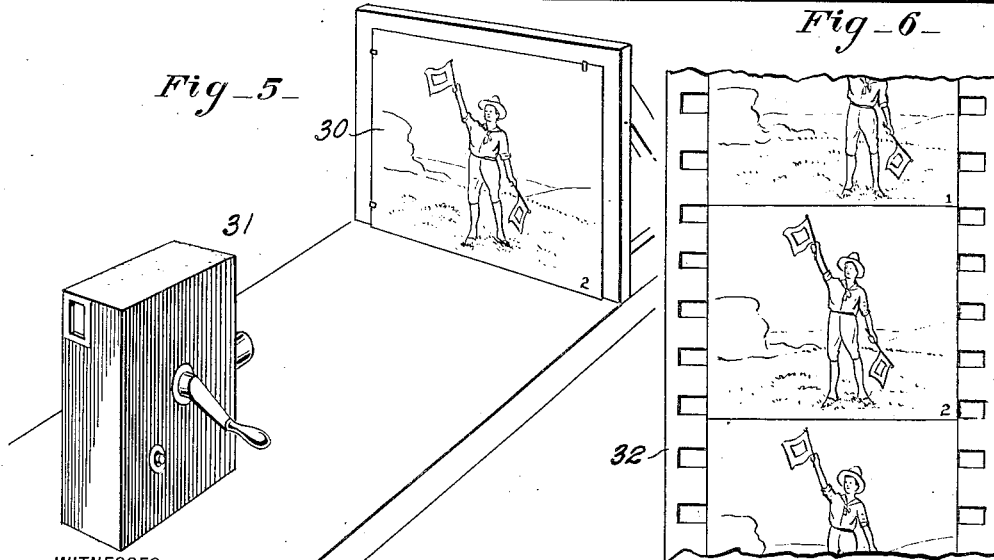


Fig-5-

Fig-6-

WITNESSES

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METHOD OF PRODUCING MOVING-PICTURE CARTOONS.

1,242,674.

Specification of Letters Patent.

Patented Oct. 9, 1917.

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To all whom it may concern:

Be it known that I, MAX FLEISCHER, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Method of Producing Moving-Picture Cartoons, of which the following is a full, clear, and exact description.

Animated hand executed pictures, or as they are termed, moving picture cartoons, as now produced by the usual methods, are recognized as having their distinctive advantages and desirable features but they usually are not life-like.

An object of my invention is to provide a method by which improved cartoon films may be produced, depicting the figures or other objects in a life-like manner, characteristic of the regular animated photo pictures.

In producing cartoon films by my improved method, scenes are enacted by the aid of living actors depicting the subjects to be displayed by the cartoons, and, through the instrumentality of a moving picture camera, pictures of the enacted scenes are taken, and from these pictures, line pictures or cartoons of the characters or objects to be portrayed are made. The series of cartoons are then photographically reproduced on a film or equivalent medium, and the photographs of the cartoons thus obtained are projected on a screen and displayed in the usual manner by any improved moving picture machine.

The invention will be particularly explained in the specific description following.

Reference is to be had to the accompanying drawings forming a part of this specification in which similar reference characters indicate corresponding parts in all the views.

Figure 1 is a perspective view representing conventionally the taking of moving pictures of actual scenes by the aid of an actor or actors, depicting the characters to be represented by the cartoon moving pictures;

Fig. 2 is a face view of a photographic film portraying the scenes thus actually produced;

Fig. 3 is a perspective view of an apparatus for projecting the photographic pic-

tures thus produced and permitting the tracing of the characters thereof;

Fig. 4 is a partly sectional side elevation of said apparatus;

Fig. 5 is a view representing conventionally the photographing of the traced cartoons; and

Fig. 6 is a face view of the final photographic film portraying the traced cartoons.

In carrying out my invention, having decided upon the subjects of the cartoons to be projected by a moving picture machine, I cause a scene to be enacted presenting the characters to be portrayed. In Fig. 1, the numeral 10 indicates an actor in a life scene going through the performance of wig-wag signaling. During the performance a moving picture camera 11 produces a series of pictures of the scene. Several pictures thus taken are produced on a film 12, (Fig. 2), as indicated at 13. The film will thus give a true portrayal of the character to be presented by the cartoons.

The pictures on the film 12 are now projected in single succession by a suitable apparatus, preferably arranged as in Fig. 3, in which an inclined platform 14 is provided and supported by suitable legs 15. A frame 16 at the upper end of the platform 14 carries a screen 17 at the back of which is placed suitable tracing paper 18, on which the artist traces the lines of each picture 13 or such elements thereof as is necessary for the cartoon. A projecting apparatus and appurtenances, designated generally by the numeral 20 and in the main of known form, is employed including a suitable projecting apparatus 21 which is placed on the platform 14. The numerals 22 indicate the reel boxes while 23 indicates a known form of lamp house.

It may be desirable to provide means whereby the artist may manually control the projecting machine from his position at the back of the screen and for this purpose, I may employ suitable means, there being shown a pull-cord 24 having a handle 25 and passing over suitable guides 26, through the platform 14 to a connection with a spring-acted lever 27, carrying a pawl 28, engaging a ratchet wheel 29, controlling the mechanism of the machine 21.

In Fig. 5 is shown conventionally the manner of photographically reproducing the car-

toons, the numeral 30 indicating a supported cartoon and 31 a moving picture camera.

In Fig. 6 is shown the film bearing the photographically reproduced cartoons which may be of any approved form adapted for the usual moving picture machines whereby to display the cartoons on a screen in the usual manner.

The projected, photographically produced series of pictures of the actual performance are thus utilized to lend realism to manually produce cartoons having radically new characteristics due, first, to the absolutely accurate relative positions of the moving object in the successive cartoons and relatively to the fixed photographed background, and second, the method lends to the manually produced cartoons, the realistic effects of the photograph by the artist arbitrarily selecting and tracing lines and features represented by the projected photographs.

In the present methods of producing moving picture cartoons, the greatest skill of the artist is required to obtain an approach to accuracy and realism in the relative positioning of the moving object in successive cartoons and in giving life-like poses thereto. My method overcomes both of these main difficulties.

In tracing the cartoon, the skilful artist instead of following accurately the lines of the photograph, can exaggerate or modify particular elements or features of a grotesque character for instance, while preserving the truthfulness of the photographic portrayal in its essentials or dominating lines. In photographing black-face characters for example, the actor is made up with special reference to facilitating the subsequent making of the line cartoons, a part of the make-up being, for example, distinct and prominent white rings about the eyes to bring out prominently in the photographs, the lines to be traced. The method possesses advantages in depicting a wide range of grotesque characters or objects. Thus, for example, a dog, masked by the representation of a horse's head may be photographed in action, the final result being motion pen drawings of what appears to be a miniature horse going through a performance.

Having thus described my invention I claim as new, and desire to secure by Letters Patent:

1. A method of making cinematographic cartoons, consisting of photographing successive poses of a movable object having a stationary background, projecting the photographs successively upon one side of each of a plurality of successively arranged translucent sheets to position the successive poses of the movable object with respect to the fixed background, and arbitrarily drawing cartoons on the other sides of said sheets

in the successive positions of the several poses of the movable object so projected.

2. In a method of producing moving picture cartoons, photographically producing a series of pictures of a moving object in different poses, projecting the said pictures in succession on successive sheets to successively locate the object on the sheets in the successive positions represented in the photographs, and drawing a series of cartoons successively on said sheets by arbitrarily selecting and tracing dominating lines presented by the projected pictures.

3. In a method of producing moving picture cartoons, photographically producing a series of pictures of a moving object in different poses, projecting the said pictures in succession on successive sheets to successively locate the object on the sheets in the successive positions represented in the photographs, drawing a series of cartoons successively on said sheets by arbitrarily selecting and tracing dominating lines presented by the projected pictures, photographically reproducing the said cartoons on a medium adapted for projecting the cartoons, and then projecting the reproduced cartoons in the same succession as the corresponding pictures in the first-mentioned series.

4. In a method of producing moving picture cartoons, photographically producing a series of pictures of a scene involving a moving object to be depicted in the cartoons, projecting said photographically produced pictures in succession upon each of a plurality of sheets to position the movable object on the sheets successively to correspond with the positions of the object in the said series of pictures, then manually producing a series of cartoons corresponding with the successively projected pictures by arbitrarily selecting and drawing on the said paper, particular lines of the positioned object as represented and positioned by the projected pictures on said sheets.

5. In a method of producing moving picture cartoons, photographically producing in succession a series of pictures of a scene involving a moving object, and a relatively fixed background, projecting said photographically produced pictures in succession upon each of a plurality of sheets to position on the respective sheets the different relative positions of the movable object, and the positions of the object relatively to the said background, and then manually producing a series of cartoons by arbitrarily selecting and drawing on the said sheets particular dominant lines presented on the respective sheets by the projected photographs.

6. A method of producing moving pictures which consists in first producing a series of pictures of a moving object in different poses, projecting the said pictures in suc-

cession on successive sheets to successively
locate the object on the sheets in the succes-
sive positions represented in the photo-
graphs, and drawing a series of pictures suc-
cessively on said sheets by arbitrarily select-
ing and following the successive dominating
positions presented by the projected pic-
tures.

In testimony whereof I have signed my
name to this specification in the presence of 10
two subscribing witnesses.

MAX FLEISCHER.

Witnesses:

J. L. McAULIFFE,
G. H. EMSLIE.