A. PETTENKOFER.

METHOD OF MAKING KINETOSCOPE BELTS.

APPLICATION FILED APR. 29, 1912.

1,048,427. Patented Dec. 24, 1912.

Fig. 1.

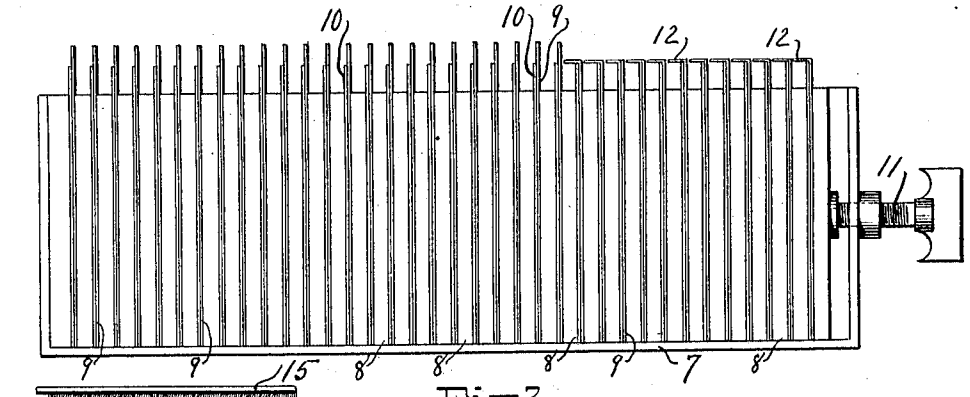


Fig. 2.

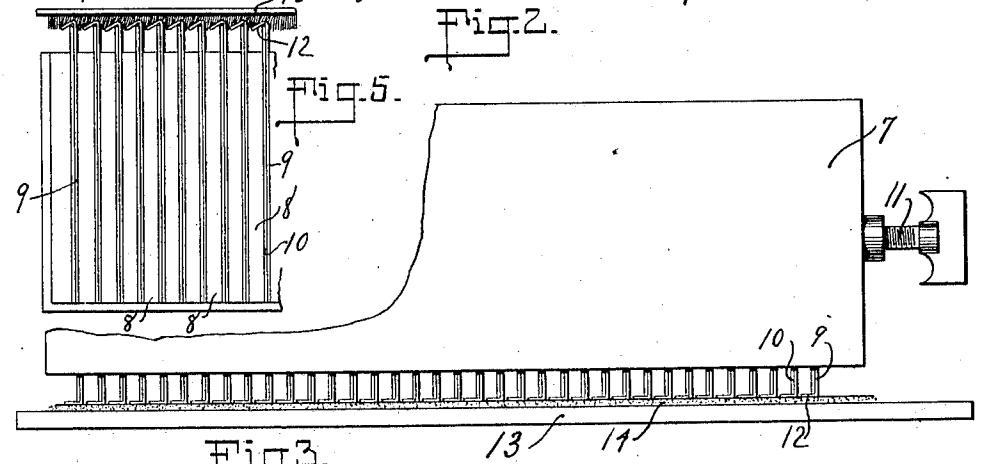


Fig. 5.

Fig. 3.

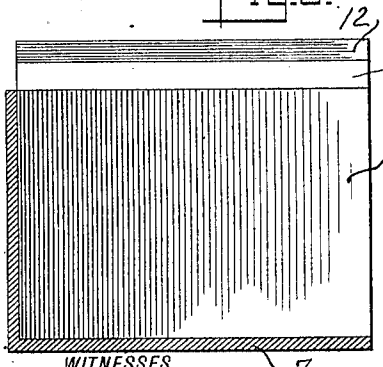
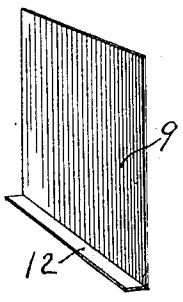


Fig. 4.



WITNESSES

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METHOD OF MAKING KINETOSCOPE-BELTS.

1,048,427. Specification of Letters Patent. Patented Dec. 24, 1912.

Application filed April 29, 1912. Serial No. 694,006.

To all whom it may concern:

Be it known that I, ADOLPH PETTENKOFER, a citizen of the United States, and a resident of New York, borough of Brooklyn, in the county of Kings and State of New York, have made and invented certain new and useful Improvements in Methods of Making Kinetoscope-Belts, of which the following is a specification.

My invention relates to kinetoscopes of the type wherein a plurality of separate leaves secured to a traveling band or belt are employed; and the object thereof is to provide an improved method or process of making the traveling belt or band used in such devices.

More specifically stated, my invention comprises a method or process the end or result of which is to secure a series of pictures with which such belts are provided, thereto; and with the objects of invention above enumerated in view, my invention consists in the improved process hereinafter more particularly explained and claimed, the drawing accompanying and forming a part of this application illustrating one form of apparatus whereby my improved process may be performed, and the several figures of the drawing showing how the apparatus is used in performing my process.

Referring to the drawing: Figure 1 is a view illustrating early steps of my process; Fig. 2 is a view illustrating the manner of applying an adhesive substance to the ends of the pictures; Fig. 3 is a view showing a section of the device shown in Fig. 1 upon a transverse plane; Fig. 4 is a view showing an individual picture in perspective; Fig. 5 is a view illustrating the final step of my improved process.

Referring to the drawing, I first take the pictures which are to be secured to a strip of flexible material to form a belt and arrange them in proper order within a suitable frame 7, Fig. 1, with intervening means for spacing the successive pictures apart from one another such as spacing blocks 8, in order that the pictures will be the proper distance apart upon the finished belt. The pictures are designated by the reference numeral 9, and a plate 10 of stiff material, such as a piece of sheet metal, is preferably placed in contact with each picture as they are assembled in the frame. The upper ends of said plates preferably extend above the upper ends of the spacing blocks 8 as shown in Fig. 1, and the plates are of less height than the pictures so that the upper ends of the pictures extend above the upper ends of the plates. After the pictures, plates and spacing blocks have been properly arranged in the frame 7, they are clamped in place as by means of a screw 11, and the upper ends of the pictures are bent over the upper ends of the plates 10 to thereby produce a narrow strip 12 extending along the end of and at an angle to the remaining portion of the picture. This step may be performed by passing the hand, or a suitable instrument, along the tops of the pictures, the upper edges of the plates 10 serving as guides over which the ends of the pictures are bent, whereby uniformity in the separate pictures is procured, as will be understood. The total thickness of the spacing means above referred to is such that the distance between adjacent pictures is as great or greater than the width of the narrow strips 12 above referred to, as shown in Fig. 1, so that the free edge of one strip will not overlie the portion of the next strip where it joins with its picture; or so that the strips will be each wholly free from other strips and will not overlie one another in part like shingles; from which it follows that upon an adhesive being applied as next explained, the entire surface of each strip 12 will be coated therewith. After the upper ends of the pictures have been bent over the plates as above explained, a suitable adhesive material is applied to the upper and exposed surfaces of the narrow strips 12. This is best accomplished by inverting the frame 7, as shown in Fig. 2, and pressing the exposed surfaces of the strips against a plate 13 upon which an adhesive material 14 has been spread, although the adhesive material may be applied in other ways as by means of a brush or roller. After the exposed surfaces of the several strips 12 have been coated with an adhesive material, a band or strip of flexible material 15 is applied to the upper ends of the pictures, or to the strips 12, and pressed against the same in any way and as will be understood from Fig. 6, whereby the band is made to adhere to the strips and the pictures are supported from the band at one end, the other ends of the pictures being free. After the adhesive material has set and become dry, the screw 11 is loosened and the pictures and band removed from the frame, and the ends of the

band to which the pictures are secured are fastened together to produce an endless band or belt such as are used in kinetoscopes.

The band of flexible material to which the pictures are secured is preferably in the form of a pile fabric such as plush, velvet, etc., although my invention does not involve, and is not limited to any particular kind or type of flexible material used for the band or belt.

In describing my process in connection with the apparatus illustrated in the drawing, I have referred to spacing blocks 8 and plates 10 as separate elements. These elements, however, are referred to as separate for purposes of convenience only, and, so far as the invention disclosed and claimed in this application is concerned, they together constitute spacing means for spacing the successive pictures apart from one another, and provide guides about which the projecting upper ends of the pictures may be bent.

The frame 7 wherein the pictures are arranged as above explained is commonly right-angular in cross-section, so as to provide a stop or guide for two sides of the pictures. The separate pictures will be so cut or trimmed that stationary objects occupy the same relative position in each, so that when the pictures are placed in the frame, the sides above mentioned will form guides for two of the edges thereof, thus insuring without special effort on the part of the person arranging them, that stationary objects upon the several pictures will register and appear immovable in the moving picture, as will be understood.

What I claim is:—

1. The process of making a belt for kinetoscopes which consists in arranging a series of pictures and spacing means in alternation in a suitable frame with the ends of the pictures extending beyond the corresponding ends of the spacing means, the thickness of said spacing means being such that the pictures are spaced farther apart from one another than the width of the angularly bent strips hereinafter referred to; bending the projecting ends of the pictures about the ends of the spacing means as guides to thereby provide each picture with a strip extending at an angle to the remaining portion thereof; applying an adhesive substance to the exposed surfaces of said angularly bent strips; and securing a band of flexible material to the coated surfaces of said strips.

2. The process of making a belt for kinetoscopes which consists in arranging a series of pictures and spacing means in alternation in a suitable frame with the ends of the pictures extending beyond the corresponding ends of the spacing means, the thickness of said spacing means being such that the pictures are spaced farther apart from one another than the width of the angularly bent strips hereinafter referred to; bending the projecting ends of the pictures about the ends of the spacing means as guides to thereby provide each picture with a strip extending at an angle to the remaining portion thereof; bringing the exposed surfaces of said angularly bent strips and a plain surface upon which an adhesive substance is spread into contact to thereby coat said exposed surfaces with an adhesive substance; and securing a band of flexible material to the coated surfaces of said strips.

3. The process of making a belt for kinetoscopes which consists in arranging a series of pictures, a plurality of spacing blocks, and a plurality of plates in a suitable frame, and in such manner that a spacing block and a plate will lie between each two successive pictures, and the ends of the pictures will extend beyond the corresponding ends of the plates; the combined thickness of said spacing blocks and plates being such that the pictures are spaced farther apart from one another than the width of the angularly bent strips hereinafter referred to; bending the projecting ends of the pictures about the ends of the plates as guides to thereby provide each picture with a strip extending at an angle to the remaining portion thereof; applying an adhesive substance to the exposed surfaces of said angularly bent strips; and securing a band of flexible material to the coated surfaces of said strips.

Signed at New York, borough of Manhattan, in the county of New York, and State of New York, this 6 day of April, A. D. 1912.

ADOLPH PETTENKOFER.

Witnesses:
H. M. WHITE,
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