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Patented Apr. 22, 1902.

O. MESSTER.

TAKING-UP APPARATUS FOR KINETOGRAPHS.

(Application filed May 15, 1901.)

(No Model.)

Fig. 2.

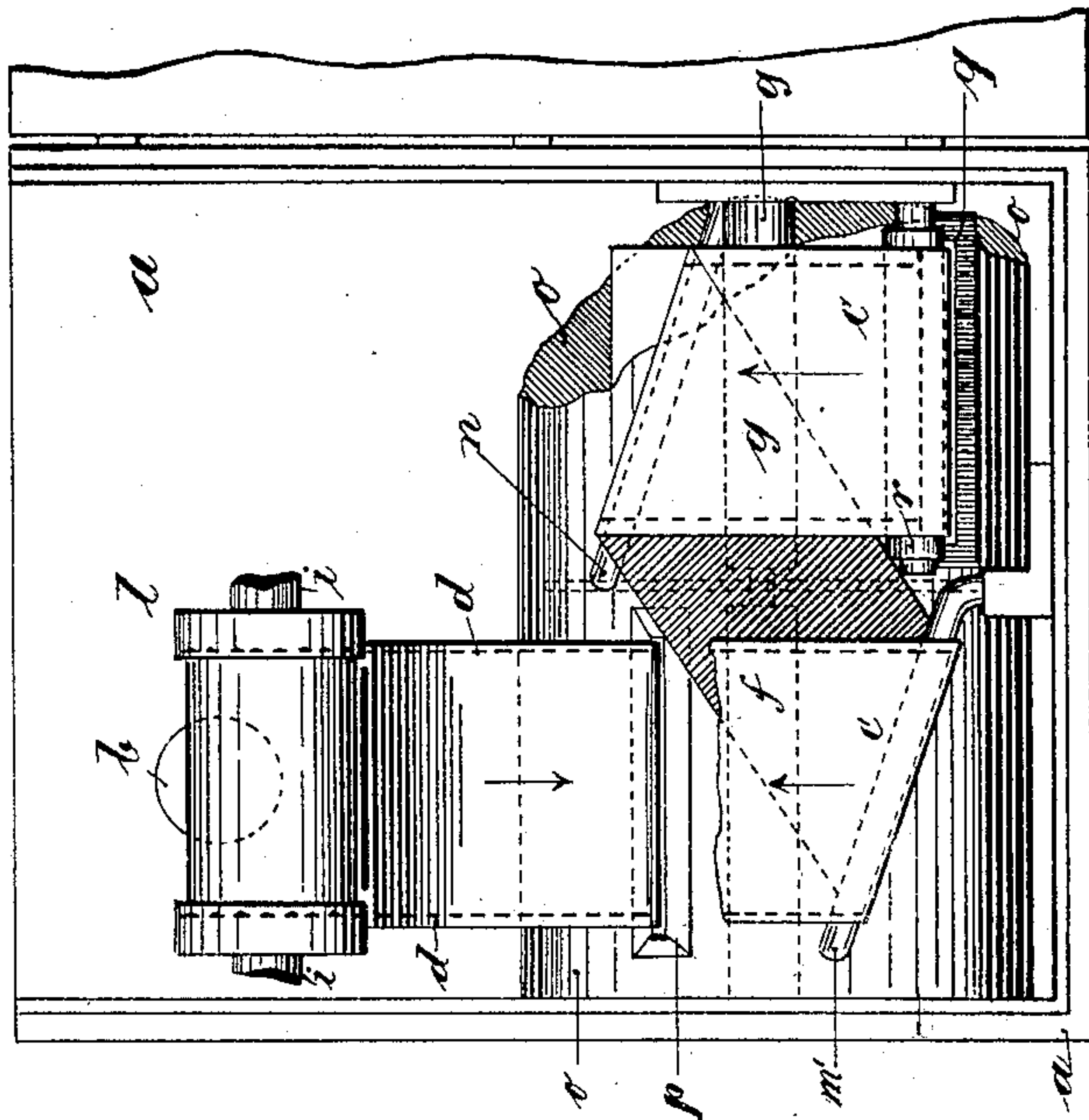
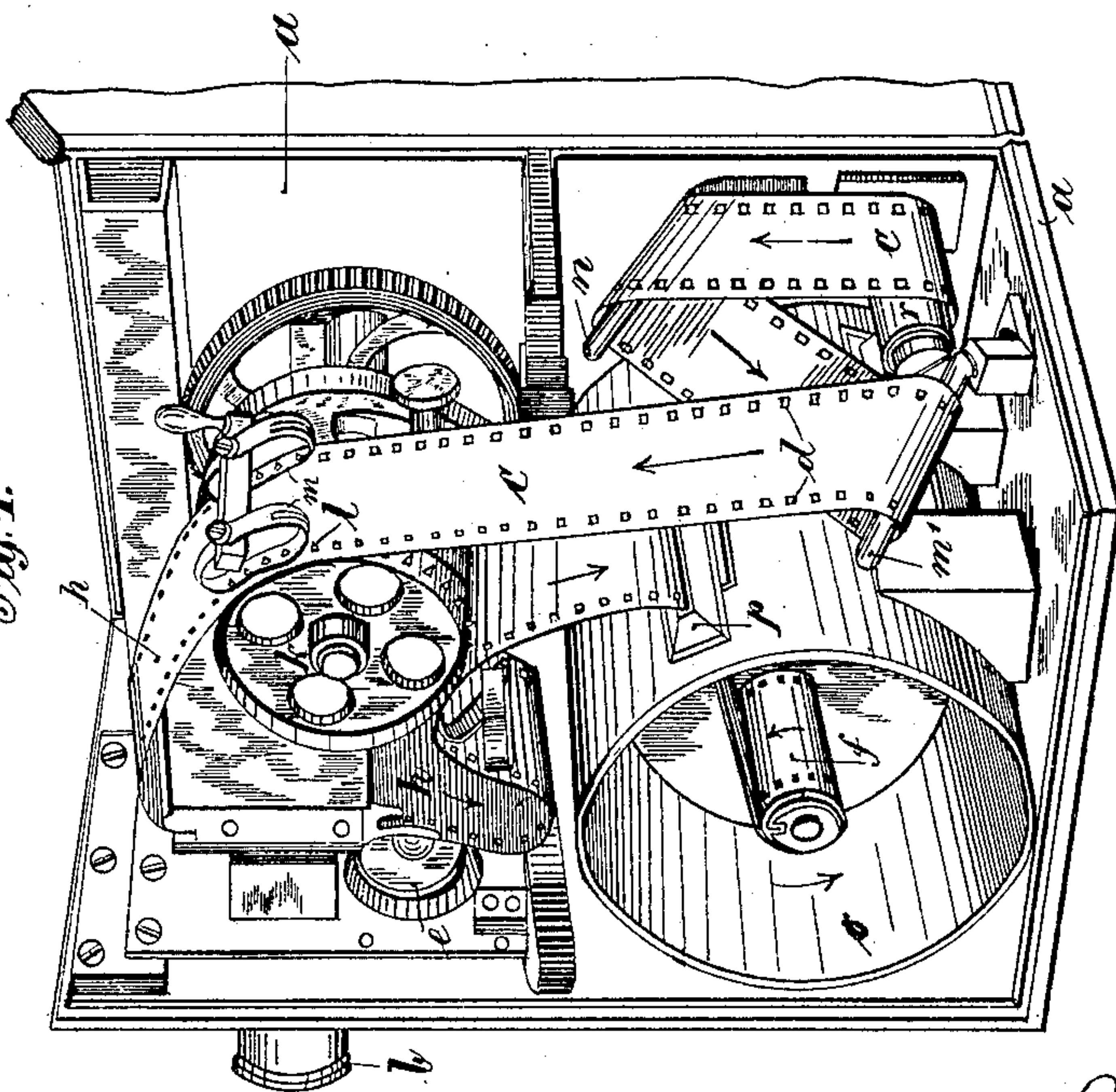


Fig. 1.



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TAKING-UP APPARATUS FOR KINETOGRAPHS.

SPECIFICATION forming part of Letters Patent No. 698,125, dated April 22, 1902.

Application filed May 15, 1901. Serial No. 60,426. (No model.)

To all whom it may concern:

Be it known that I, OSKAR MESSTER, a subject of the Emperor of Germany, residing at Friedrich street 95, Berlin, in the German Empire, have invented certain new and useful Improvements in a Taking-Up Apparatus for Kinetographs, of which the following is a complete specification.

In the taking-up apparatus for kinetographs the film-bands which are to be exposed are, as is well known, led past the objective by means of a periodically-revolving transporting-cylinder, which has pins which catch into the holes which exist on both sides of the film-bands. Hereby the film-band uncoils itself from the so-called "supply-roll," and after it has been exposed is again wound around a take-up roll. Each of these rolls were till now placed in separate chambers, whereby the whole apparatus was of an unproportionate dimension and was very difficult to handle.

To decrease the size of the apparatus and to be able to place both the rolls in a single chamber side by side is the purpose of the invention in question.

In the drawings herewith presented the new taking-up apparatus is displayed and shown.

Figure 1 is a perspective back view of the whole apparatus; and Fig. 2, a delineation of the cylinder arrangements, whereby the film-band is partly removed, so that the internal parts can be viewed.

a is the taking-up apparatus past the objective *b* of which the film-bands *c* are led in the direction of the arrows, which are shown in the drawings, whereby the pins, which are not sketched, of the transporting-drum *e* catch into the holes *d* of the bands. If the film-band *c* is led direct from the supply-roll to the objective *b*, it often happens that through the jerky movement of the drum *e* more gets uncoiled from the roll than was intended. To remove this evil, the band *c* is so led that at the beginning it forms a keeper *h*, one in front of the objective *b* and another behind the transporting-drum *e*. On the driving-pivot *i* of the apparatus an auxiliary drum *k*, with pins *l* for the transporting-holes *d* of the film, is arranged, against which, before passing the objective, as well as before it is rolled after exposure, it is pressed by means

of a suitable spring. The rolls *f* and *g*, which serve to coil and uncoil the film, are arranged side by side, while until now generally each roll was placed in a separate roll. The arranging of the rolls *f* and *g* side by side is difficult, because the film-bands in order to reach the objective must be placed in a plane suitable for the latter, as the bands of the objective must be constructed perfectly vertical to avoid distortion. On the other hand, however, the band *c* must at least reach from one to the other roll, so that nevertheless it is necessary to conduct the film *c* in an oblique position. For this purpose two guides *m' n*, which lie slanting, are conformable to the purpose arranged and fastened to the side walls of the apparatus *a*. The film *c* is led over the guides *m n*, and then without further difficulty from thence can glide past the objective *b* straight-lined. Both the rolls *f* and *g* are surrounded by a protecting-sheath *o*, which is provided with slits *p* and *q* for the entrance and the exit of the film *c*. Besides this a roll *r* for the better guiding of the band is placed in front of the exit-slit.

By turning the drum *e*, the pins of which catch into the holes *d* in the usual manner, the movement of the film *c* is brought about and thereby uncoils itself from the roll *g*, comes out of the slit *q* of the protecting-sheath *o*, is led over the roll *r*, and by means of the fixed pins *m' n* is taken into the middle plane of the objective *b*. The band moves in the direction of the arrows sketched, over the auxiliary drum *k*, past the objective *b*, over the impulsion-drum *s*, is led back again to the drum *k*, from whence at last it reaches the roll *f* after passing through the slit *p* of the protecting-sheath *o*, and is then wound up on the roll *f*.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In an apparatus of the character described, the combination with the supply and take-up rolls arranged side by side as described, of guides *m', n* arranged slantingly and a film adapted to travel from the supply-roll over the said guides the guide *m'* being so arranged that the film after passing over the same will be coincident with a vertical

plane passing through the objective as set forth.

2. In an apparatus of the character described, the combination with the supply and
5 take-up rolls arranged side by side, of guides m' , n arranged slantingly, a film adapted to travel from the supply-roll over the said guides, the guide m' being so arranged that
10 the film after passing over the same will be coincident with a vertical plane passing through the objective, and a casing surrounding the rolls and being provided with slots for the passage of the film.

3. In an apparatus of the character described, the combination with the supply and
15 take-up rolls arranged side by side, of guides m' , n arranged slantingly, a guide-roller r , the drum k provided with pins, and a drum e , all adapted for coöperation as set forth.

In witness whereof I have hereunto set my
20 hand in presence of two witnesses.

OSKAR MESSTER.

Witnesses:

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