

PATENT SPECIFICATION



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COMPLETE SPECIFICATION

Improvements in Photographic and similar Apparatus

We, ARTIMA (LONDON) LIMITED, of 273, Grays Inn Road, London, W.C.1, a British Company, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The invention relates to photographic and similar apparatus, that is to say, apparatus such, for example, as advertising apparatus in which reels of film or other strip material are required to be wound from one spool to another.

The object of the invention is to effect the fixing in the said casings of the spool supports, even if they are rather large, without the aid of any supplementary means of fixing, such as screw, bolts, rivets or other fixing means, and in a manner which avoids delicate operations, obviates all risks of deterioration of or damage to the casings and which results in an important economy in the cost of the apparatus.

For this purpose, the invention consists in the combination, for fixing the spool supports, of cavities, hollows, or grooves, formed in the casing of the apparatus with bent resilient tongues which are provided on the said supports, and which are fixed by being forced into the said grooves, hollows or cavities.

The invention has also for its object to provide, as new industrial products, spool supports for photographic and similar apparatus, which supports are characterised in that they are formed of a single member of resilient metal or alloy, and comprise a base provided on the one hand with one or several resilient tongues which are adapted to be fitted into the cavities or grooves in the casing; on the other hand with one or several similar tongues for braking the film; and also one or two lateral members bent up at right angles to the base for forming the cheeks for supporting the spool.

Another object of the invention is the production, also as a new industrial product, of a member of a resilient metal or alloy, provided with one or several folded tongues adapted to be fitted into the cavities or grooves in the casing, the said

member forming at the same time a support for the spools, a partition for the dark chamber and a guide for the film.

In order to facilitate the understanding of the invention, an instance, which is by way of example only, of carrying out the invention is hereinafter described and diagrammatically represented in the accompanying drawings in which,

Figure 1 is a plan view of one of the two sections forming a casing of moulded material, for a photographic camera, with the spool supports fitted in it;

Figure 2 is a longitudinal transverse section on the line A—A of Figure 1;

Figure 3 is a perspective view of one of the spool supports; and

Figure 4 is a fragmentary perspective view of a modification.

In the drawings, 1 is a section forming a half-casing; 2 represents the mounting of the objective, 3 the view-finder, and 4 and 5 are the longitudinal and transverse partitions of the dark chamber.

The mounting of the spool supports is effected, as shown in Figures 1—3, by means of the grooves or cavities 6 parallel to the partitions 5, the spool-carriers 7 being adapted to be firmly engaged therein when forced into position. For this purpose, the spool-carriers 7, formed of resilient material, such, for example, as tempered steel, and whose base has a reinforcing rib, are provided with downwardly extending tongues 7^a bent in the form of hooks, so that when the said hooks are engaged in the grooves 6 and a suitable pressure is exerted at the inner side of the hooks, the fitting into place of the spool carriers and the definite fixing of the said hooks into the grooves is assured, the shape of the extremities of the hooks avoiding any possibility of their accidental dislodgement from the grooves which accommodate them.

The spool-carriers 7 comprise, further, a bent tongue 7^b which serves to exert a certain pressure on the film to prevent an inopportune unwinding when the film is being placed in position and further to ensure a suitable tension in the film; they also present side parts 7^c bent up at right angles forming cheeks for supporting the

spools by their ends, spindles, or holes. In the example shown, each of the cheeks 7^c is provided with a hole 7^d with outwardly turned edges, to receive the corresponding spindle of the spool. One of the spool-carriers 7 has two lateral cheeks 7^c, while that which is provided for the winding spool has a single cheek, since the said spool is engaged at its other end with the key 8.

As regards the variation represented in Figure 4, each of the longitudinal partitions 4 of moulded material is replaced by a spool-carrying member formed by an iron plate 9 provided with tongues 9^a in the form of hooks fitting into the longitudinal grooves 6 provided in the casing, the said iron plate comprising a bent upper portion 9^b resting on the transverse partitions 5 and serving to guide the film, the said member being provided with side lugs 9^c, with pins 9^d, projecting beyond the partitions 5 and serving to receive the drilled ends of the spools.

It is to be understood it is possible, without departing from the scope of the invention, to conceive variations and improvements in details, and to provide for the use of equivalent means.

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

1. Photographic and similar apparatus having a casing of moulded material and having spool supports, that are fitted into position by the engagement of bent resi-

lient tongues thereon with cavities or grooves formed in the casing, which tongues are fixed by being forced into the said cavities or grooves.

2. Photographic and similar apparatus according to Claim 1, in which the resilient tongues are shaped to a hook-like form with extremities that are adapted to engage the material of the casing when forced into the cavities or grooves.

3. Photographic and similar apparatus according to Claim 1 or Claim 2, having spool supports formed from a single member of resilient metal or alloy and comprising a base, one or more tongues intended to be applied into the cavities or grooves in the casing and with one or more tongues serving as means for braking the film, the said base being also provided with one or two lateral members forming the supporting cheeks for the bobbin of the spool.

4. Photographic and similar apparatus according to Claim 1, provided with a fitting of metal or alloy having one or several tongues adapted to be fitted into grooves or cavities in the casing, the said member serving as a support for the spools as a partition for the dark chamber and as a guide for the film.

5. Cameras having the casing and spool supports constructed in the manner as hereinbefore described with reference to the accompanying drawings.

Dated the 11th day of January, 1937.

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Agents for the Applicants.

[This Drawing is a reproduction of the Original on a reduced scale.]

