

PATENT SPECIFICATION

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(54) OPTICAL SLIDE PROJECTOR

(71) We, FRANKE & HEIDECKE GMBH, a German Body Corporate, trading as ROLLEI-WERKE FRANK & HEIDECKE, of 196 Salzdahlumer Strasse, Braunschweig, Germany, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed to be particularly described in and by the following statement:—

The present invention relates to an optical slide projector of the kind provided with a baseplate, a cover mounted thereon and covering the projection units, with a magazine guide which is mounted on the baseplate and parallel to the cover and is delimited by the said cover and by a side member extending along the said guide, and with a slide lifting ramp situated in the said magazine guide.

In a known projector of this kind the magazine guide with the side member is mounted as a compact component, usually made of plastic, on special fittings provided in the baseplate and screwed into place. The cover, manufactured separately, is then placed on the baseplate, in which position it extends beyond the magazine guide, and likewise screwed to the said baseplate.

The present invention may improve the technique of manufacturing a projector of the kind mentioned at the beginning in such a way that it can be produced both more simply and more economically and can also be assembled more rapidly with a few manual operations.

According to the present invention in a projector of the kind described the cover, the magazine guide with the slide lifting ramp and the side member form a one-piece component mounted on the baseplate and having an approximately constant wall thickness over its entire cross-section and extending beyond the said baseplate on all sides.

In a further version of the invention the apertures provided in the cover and in the side member and serving to give passage to

the slide change slider movable transversely to the magazine guide are formed by incisions in the wall of the component in question.

This measure provides a component which will be extremely simple to manufacture in one single operation and which can be mounted in its complete form on the baseplate and affixed in this position. The entire projector housing thus consists solely of two parts, i.e. the baseplate, which accommodates all the units, such as the projection lens, the projection bulb, the slide change gearing, the driving motor and the cooling blower, and an upper part covering the baseplate including the projection units.

In a further embodiment of the invention the baseplate is trough-shaped, so that the upper part of the projector, extending beyond the side walls, can be very simply affixed to the base of the said trough.

A constructional embodiment of the present invention will now be described, by way of example, with reference to the accompanying drawing, wherein:—

Figure 1 is a side view of the projector, as viewed from the side member, with a partial longitudinal section (in the direction of the optical axis) through the upper part of the projector; and

Figure 2 is a section through the projector, transversely to the optical axis.

A baseplate 1, constructed in the form of a trough, bears all the projection units, such as the projection lens 2 roughly shown in the drawing, the driving motor including the cooling blower 3, the slide change slider 4 movably mounted on the baseplate 1 and including the slide change gearing not shown in the drawing. The baseplate including the projection units mounted thereon are surrounded by an upper part 5 which surrounds the trough-shaped structure on all sides and is affixed thereto. The upper part is thin-walled and of an approximately constant wall thickness over the entire cross-section of the said upper part. In the

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5 zone of the projection lens, cooling blower
and driving motor, including the slide
changing mechanism, the upper part forms a
cover 6 which covers the said projection
units and continues in the form of a
magazine guide 7 situated on one side of the
cover 6, the said upper part at the same time
forming, in the zone of the slide change
plane, a slide lifting ramp 8, and finally
10 terminating in a side member 9 which
delimits the magazine guide 7 on the
longitudinal side. In the zone of the slide
changing plane the upper part has incisions
giving passage to the slider 4, movable
15 transversely to the magazine guide, i.e. the
incision 10 in that side wall of the cover 6
which delimits the magazine guide, for the
purpose of moving the slide out of the
magazine guide into the image frame, and
20 the incision 11 in that side wall of the side
member 9 which faces away from the
magazine guide 7, serving for the entry of
the slide changing slider 4.

WHAT WE CLAIM IS:—

25 1. An optical slide projector with a
baseplate, a cover mounted thereon and
covering the projection units, with a
magazine guide which is mounted on the
baseplate and parallel to the cover and is
30 delimited by the said cover and by a side
member extending along the said guide, and
with a slide lifting ramp situated in the said

magazine guide, wherein the cover, the
magazine guide with the slide lifting ramp
and the side member form a one-piece
component mounted on the baseplate and
having an approximately constant wall
thickness over its entire cross-section and
extending beyond the said baseplate on all
sides.

2. An optical slide projector as claimed in
Claim 1, with a slide changing slider
movable transversely to the magazine guide
and with apertures provided in the side
member and in the cover to give passage to
the slider, wherein the two apertures for the
slider are formed by corresponding incisions
in the wall of the part.

3. An optical slide projector as claimed in
Claim 1 or 2, wherein the baseplate is
trough-shaped.

4. An optical slide projector, substantially
as described herein with reference to and as
illustrated by the accompanying drawing.

5. An optical slide projector as claimed in
Claim 1, substantially as hereinbefore
described.

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5 zone of the projection lens, cooling blower and driving motor, including the slide changing mechanism, the upper part forms a cover 6 which covers the said projection units and continues in the form of a magazine guide 7 situated on one side of the cover 6, the said upper part at the same time forming, in the zone of the slide change plane, a slide lifting ramp 8, and finally
10 terminating in a side member 9 which delimits the magazine guide 7 on the longitudinal side. In the zone of the slide changing plane the upper part has incisions giving passage to the slider 4, movable
15 transversely to the magazine guide, i.e. the incision 10 in that side wall of the cover 6 which delimits the magazine guide, for the purpose of moving the slide out of the magazine guide into the image frame, and
20 the incision 11 in that side wall of the side member 9 which faces away from the magazine guide 7, serving for the entry of the slide changing slider 4.

WHAT WE CLAIM IS:—

25 1. An optical slide projector with a baseplate, a cover mounted thereon and covering the projection units, with a magazine guide which is mounted on the baseplate and parallel to the cover and is
30 delimited by the said cover and by a side member extending along the said guide, and with a slide lifting ramp situated in the said

magazine guide, wherein the cover, the magazine guide with the slide lifting ramp and the side member form a one-piece component mounted on the baseplate and having an approximately constant wall thickness over its entire cross-section and extending beyond the said baseplate on all sides.

2. An optical slide projector as claimed in Claim 1, with a slide changing slider movable transversely to the magazine guide and with apertures provided in the side member and in the cover to give passage to the slider, wherein the two apertures for the slider are formed by corresponding incisions in the wall of the part.

3. An optical slide projector as claimed in Claim 1 or 2, wherein the baseplate is trough-shaped.

4. An optical slide projector, substantially as described herein with reference to and as illustrated by the accompanying drawing.

5. An optical slide projector as claimed in Claim 1, substantially as hereinbefore described.

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