M. C. NEUNER.

BOOKBINDING.

APPLICATION FILED APR. 29, 1909.

951,885. Patented Mar. 15, 1910.

Fig. 1.

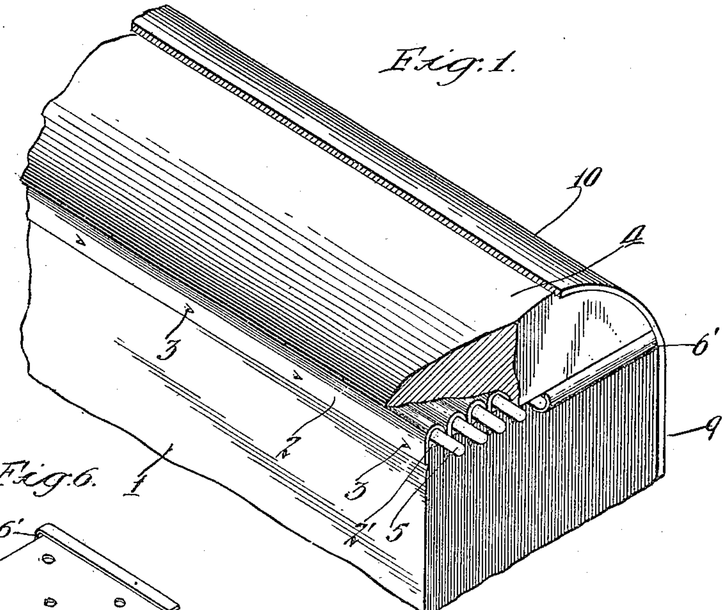


Fig. 6.

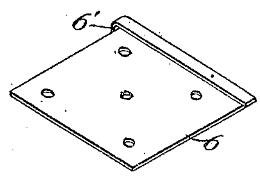


Fig. 2.

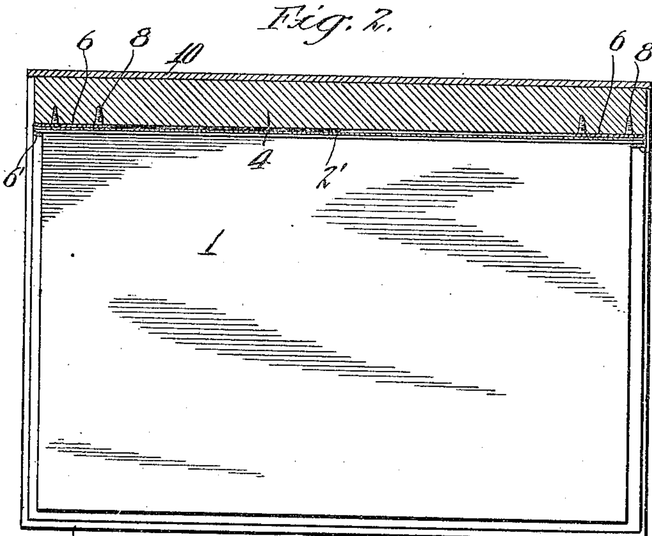


Fig. 3.

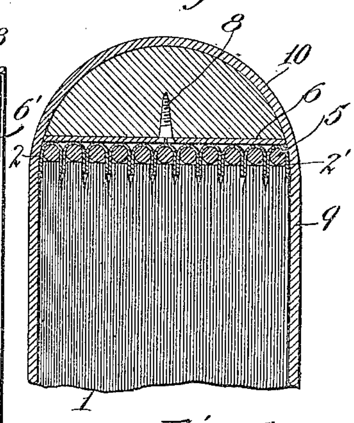


Fig. 5.

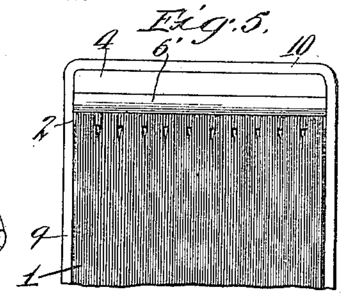
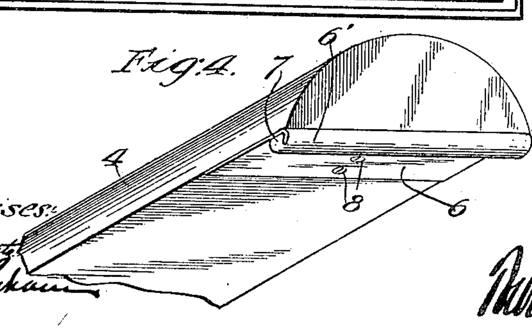


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

MARTIN C. NEUNER, OF LOS ANGELES, CALIFORNIA.

BOOKBINDING.

951,885. Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed April 29, 1909. Serial No. 493,013.

To all whom it may concern:

Be it known that I, MARTIN C. NEUNER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Bookbinding, of which the following is a specification.

The main object of the present invention is to provide for binding into book form sheets or leaves which do not permit of the usual stitching.

An important application of the invention in this connection is the utilization by rebinding of old or worn books of which the leaves have been mutilated, so that some or all of them do not present the usual signature fold required for binding by stitches.

Another object of the invention is to provide for binding or rebinding books in a durable and economical manner.

Other objects and advantages of the invention will appear hereinafter.

The accompanying drawings illustrate my invention and referring thereto: Figure 1 is a perspective of a portion of a book bound according to my invention. Fig. 2 is a longitudinal section of the book. Fig. 3 is a transverse section of a portion of the book adjacent to the back. Fig. 4 is a perspective of one end of the back member. Fig. 5 is an end view of the back member showing a different form of the back from that shown in Figs. 1 to 4. Fig. 6 is a perspective view of a retaining plate with one of the ends open to receive the packs.

The sheets or leaves to be bound indicated at 1 are assumed to be loose or separate sheets. As illustrating an important application of the invention, said sheets may be assumed to be the leaves of a school book which by reason of use have become worn so that some of the leaves have been detached or mutilated and are wholly or partly loosened from the remainder of the book. In rebinding such a book, the old binding is removed, the leaves are arranged in proper order and are then cut clean along the rear edges so as to present a smooth rear edge for each sheet and cut away any mutilated portion. The leaves are then divided into packs or groups corresponding, for example, in thickness, to the usual signatures. Each pack is bound into a unit by means of a metallic binding or clamping strip 2. The binding strip 2 consists of sheet metal bent in channel shape and of such dimensions as to embrace the pack of leaves 1. In binding the pack by means of this channel strip, the said pack is inserted within the channel 2′ of the strip and the walls of the channel are then forcibly compressed upon the pack to clamp the pack and at the same time indentations or depressions 3 are punched in said walls, so as to enter or engage with the leaves of the pack.

Each metallic binding device 2 for the leaf packs is provided with means for attachment to the back of the book. Said attaching means consists, preferably, of a wire or rod 5 inserted within the channel of the binding device, and extending beyond the channel strip at each end, this rod or wire being preferably placed in position within the channel strip before the said channel strip is compressed upon the pack. The several packs or signatures so formed are assembled in regular order to form the book and are attached to the back member by means engaging the projecting end portions of wires or rods 5, said means consisting of plates 6 secured to the back 4, each plate 6 having its outer end bent over to form a channel 6′ extending transversely to the book and across the back of the book, the exposed ends of rods or wires 5 being received in or engaging in these channels 6′. The parts being so arranged are held in position by bending over the ends 7 of the channel portion 6′ of the retaining plates 6, as shown in Fig. 4, so as to hold the said wires or rods and their attached binding devices from lateral displacement.

The back member 4 may be formed of any suitable shape or structure, for example, it may be formed of a wooden strip having the plates 6 attached thereto by means of screws 8, the covers 9 of the book being connected to this back by an outside back member 10 extending over the back body 4 and secured thereto.

What I claim is:—

In a book, the combination with a plurality of packs of leaves, of a binding device for each pack consisting of a channel member embracing and clamping the rear edge of each pack of leaves, a rod extending longitudinally within the channel member and beyond the ends of the pack, and a back

member provided with plates formed with grooves extending transversely thereto, said grooves engaging and supporting the projecting portions of said rods, said plates being bent at the ends of each groove to retain the said rods.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 22nd day of April 1909.

MARTIN C. NEUNER.

In presence of—
G. T. HACKLEY,
FRANK L. A. GRAHAM.