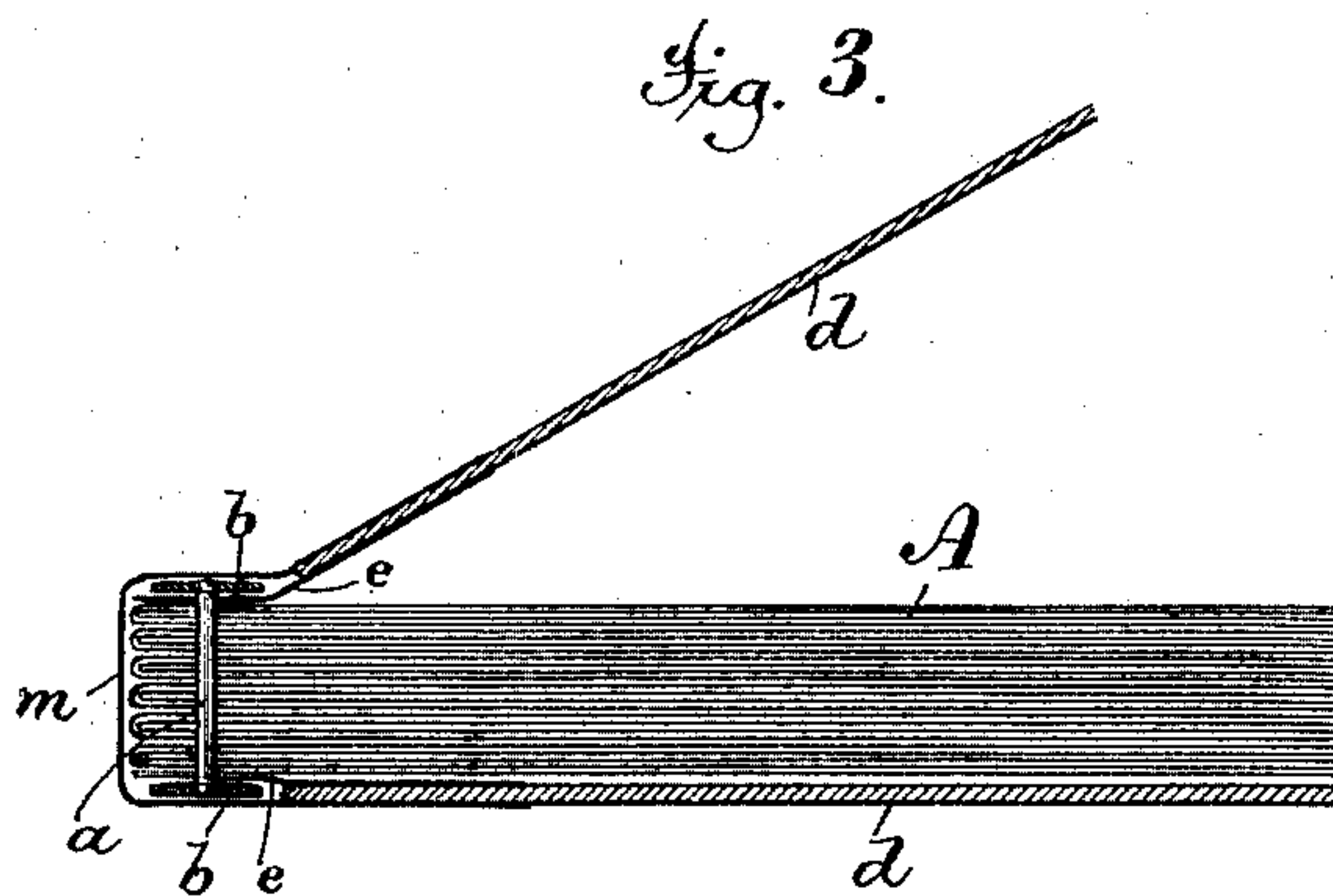
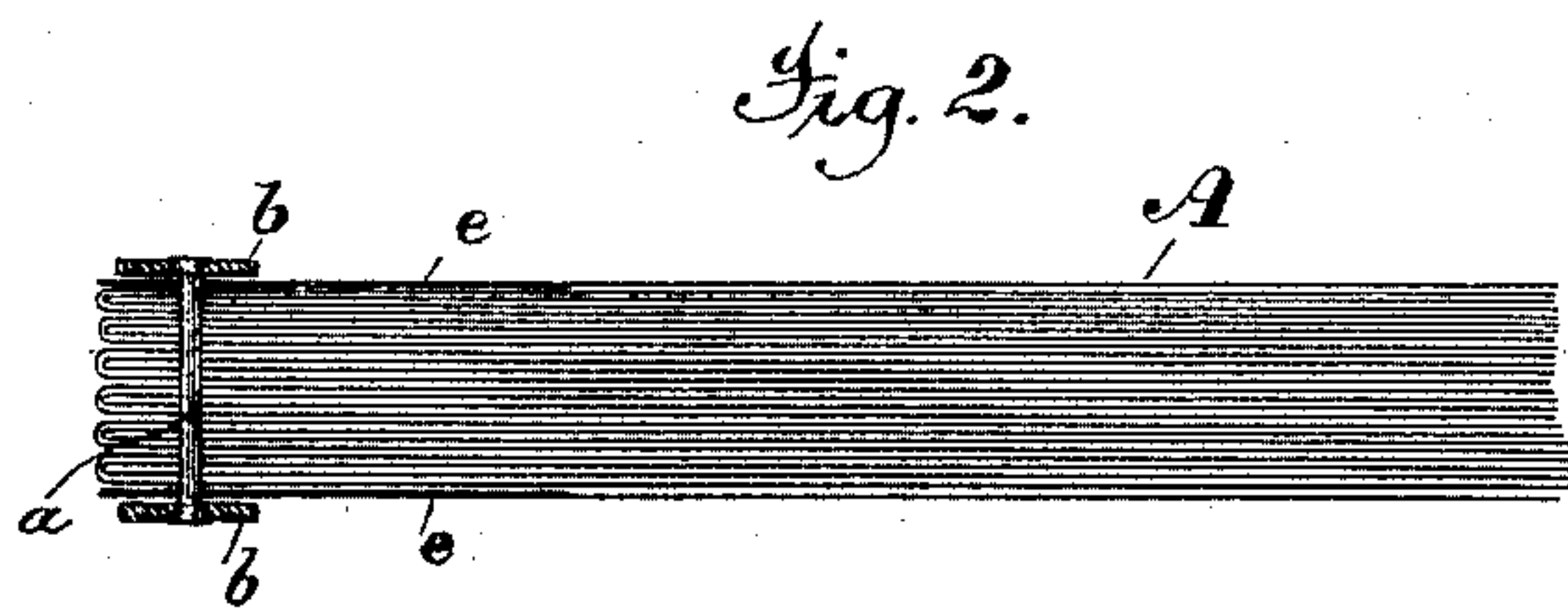
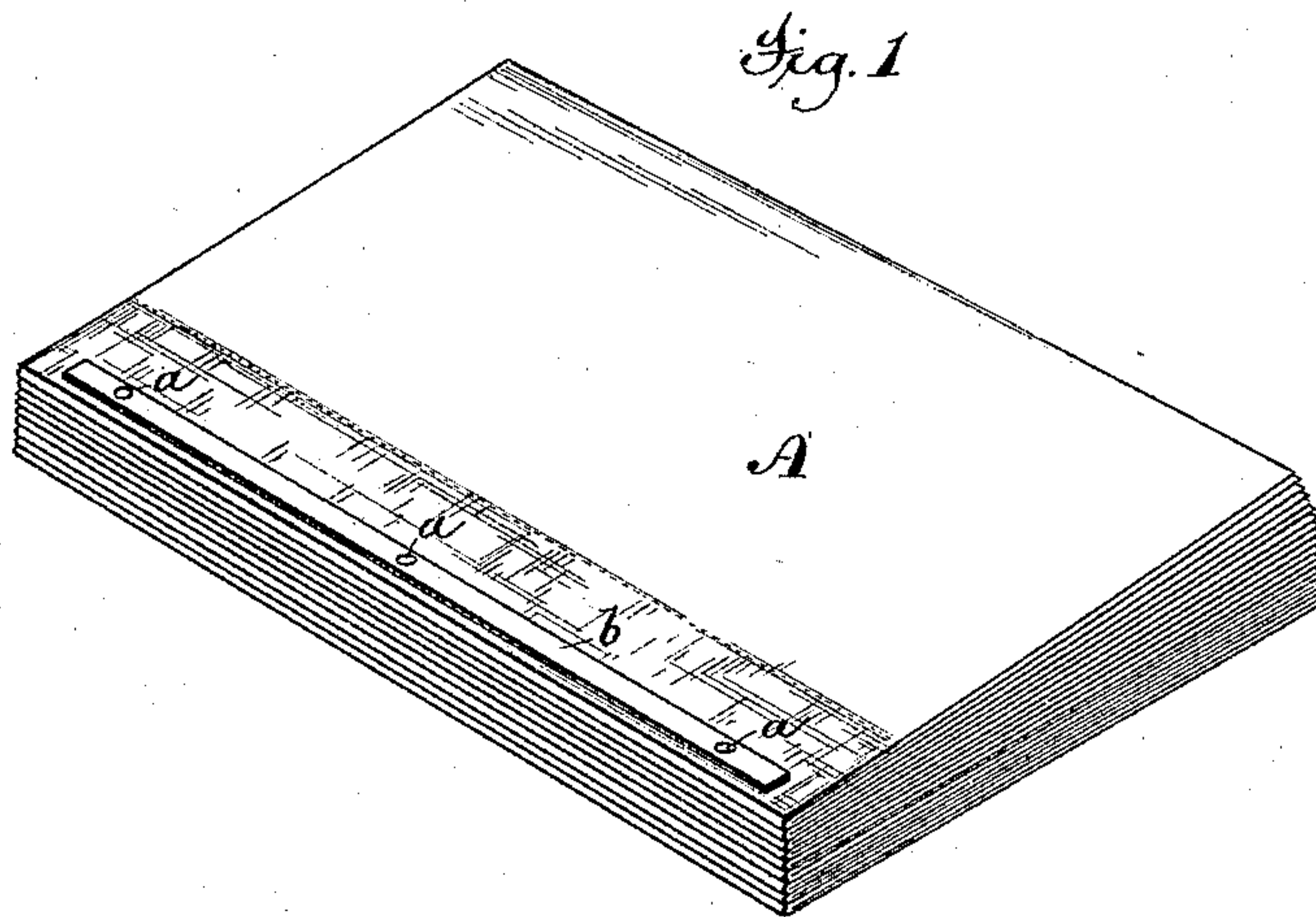


(No Model.)

T. J. CAGNEY.
BOOK BINDING.

No. 277,456.

Patented May 15, 1883.



Witnesses:

T. H. Palmer
H. N. Jasbera

Inventor,

Timothy J. Cagney,
by
Munson & Philipp,
Atty's.

UNITED STATES PATENT OFFICE.

TIMOTHY J. CAGNEY, OF NEW YORK, N. Y., ASSIGNOR TO SHELDON & CO.,
OF SAME PLACE.

BOOK-BINDING.

SPECIFICATION forming part of Letters Patent No. 277,456, dated May 15, 1883.

Application filed December 29, 1882. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY J. CAGNEY, a citizen of the United States, residing in the city of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Book-Binding, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

10 This invention relates to a means which, although applicable to the binding of all classes of books, is especially adapted to those books—such as school-books, reference-books, and account-books—which, from frequent and rough
15 usage, are particularly liable to have their leaves or signatures torn apart. The collection of leaves or signatures composing these and other classes of books have heretofore, among other ways, been secured together by means of
20 wire staples, which passed through the entire body of leaves or signatures, and had their ends properly clinched or bent. This means, while well adapted for holding the leaves or signatures firmly together, was not, owing to the
25 limited extent of the bearing which the staples necessarily had upon the weak paper, wholly successful in holding the leaves or signatures in some classes of books, and when the bodies of books bound by this means were not provided
30 with covers, the outside leaves were for the same reason very liable to be torn away from their companions. Another means which has been employed for temporarily binding books consists of a pair of covers united by a back-
35 piece, which covers have longitudinal binding-strips, between which the body of leaves or signatures is held, to which they are attached by split rivets that are passed through the signatures and the covers, the heads of the split rivets
40 resting on the outside of one cover, and their split ends spread apart on the outside of the other cover. This means, while affording a temporary binding which allows of the detaching of one or more of the signatures or leaves,
45 is objectionable, because of the rough and unsightly appearance presented by its externally-exposed metal fastenings, and because of the liability of the ends of its split rivets abrading any surface upon which the book is laid, or injuring the clothing or hands of the user. Such
50 binding, in consequence of these objections, is

not adapted to books permanently bound, or suited for frequent use.

It is the object of the present invention, while securing the desirable qualities of a metallic binding, to avoid the objections and overcome the difficulties attending existing modes of such binding, by providing a means of permanent binding, by which the body of leaves or signatures constituting the book will be
55 strongly and permanently held together and to the covers, the metal fastenings constituting which binding shall be concealed in finishing the book, so as not to present a rough and unsightly appearance.

To this end the invention consists in a book the leaves or signatures of which are secured together by means of binding wires or rivets which pass through said leaves or signatures and have their ends secured in or to flat strips or plates of metal, which extend longitudinally of the book and rest upon its outside leaves or signatures, said strips and binding wires or rivets being enveloped by the cover.

In the accompanying drawings, Figure 1 is a perspective view of a body of leaves or signatures constituting the body of a book bound according to the present invention. Fig. 2 is a cross-section of the same, and Fig. 3 is a cross-section of a book completely bound and finished according to the present invention.

The body A of the book is made up, in the usual manner, of any desired number of leaves or signatures imposed upon each other, as shown, and is bound together by a number of
55 wires, *a*, which pass through the leaves or signatures at the proper distance from the back edges thereof, and have their ends riveted, headed, or otherwise secured to thin flat metal strips *b*, which extend longitudinally of the
60 body, as shown in Fig. 1. The book thus bound is then provided with covers, as shown in Fig. 3, in which the ordinary covers, *d*, are provided with flexible hinge-pieces *e*, which are secured beneath the strips *b* by the binding-wires. In order to conceal the strips *b* and the heads or ends of the rivets or wires *a*, a
65 backing, as *m*, is secured to the covers *d* and extended around the back of the book, thus enveloping said strips and rivets. By this means it will be seen that not only are the
70 leaves or signatures held firmly together, but

that the binding-wires *a*, by reason of the plates *b*, have so large a hold upon the outside leaves or the covers that it will rarely happen that the latter will be torn away. It
5 will also be observed that this completely envelops the metal strips and fastening wires or rivets, so that nothing is left exposed to present an objectionable appearance, or to abrade
10 the hands of the user or injure a table or other object with which it may have contact in use.

In cheap grades of work where stiff covers are not used, the metal fastenings may be concealed without difficulty by simple covering-strips lapped onto paper or cloth covers; or
15 the cover and backing may be one simple piece of material, as in pamphlets.

When the book is of considerable thickness, it will usually be found desirable to make the binding-wires *a* of spring metal, so that they

will yield more or less and permit the book to
open more readily.

What I claim is—

A permanently-bound book the leaves or signatures of which are held together by means of binding wires or rivets which pass through
25 said leaves or signatures and flat strips of metal, to which strips they are secured by swaging, said binding-rivets and metal strips being enveloped and concealed by the backing
of the outer cover, substantially as described. 30

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

TIMOTHY J. CAGNEY.

Witnesses:

T. H. PALMER,
A. N. JASBERA.