(No Model.) 4 Sheets—Sheet 1.

W. A. COOKE, Jr., & C. S. COOKE.

TRANSFERRING PAPER FILE AND BINDER.

No. 403,826. Patented May 21 1889.

Fig: 1.

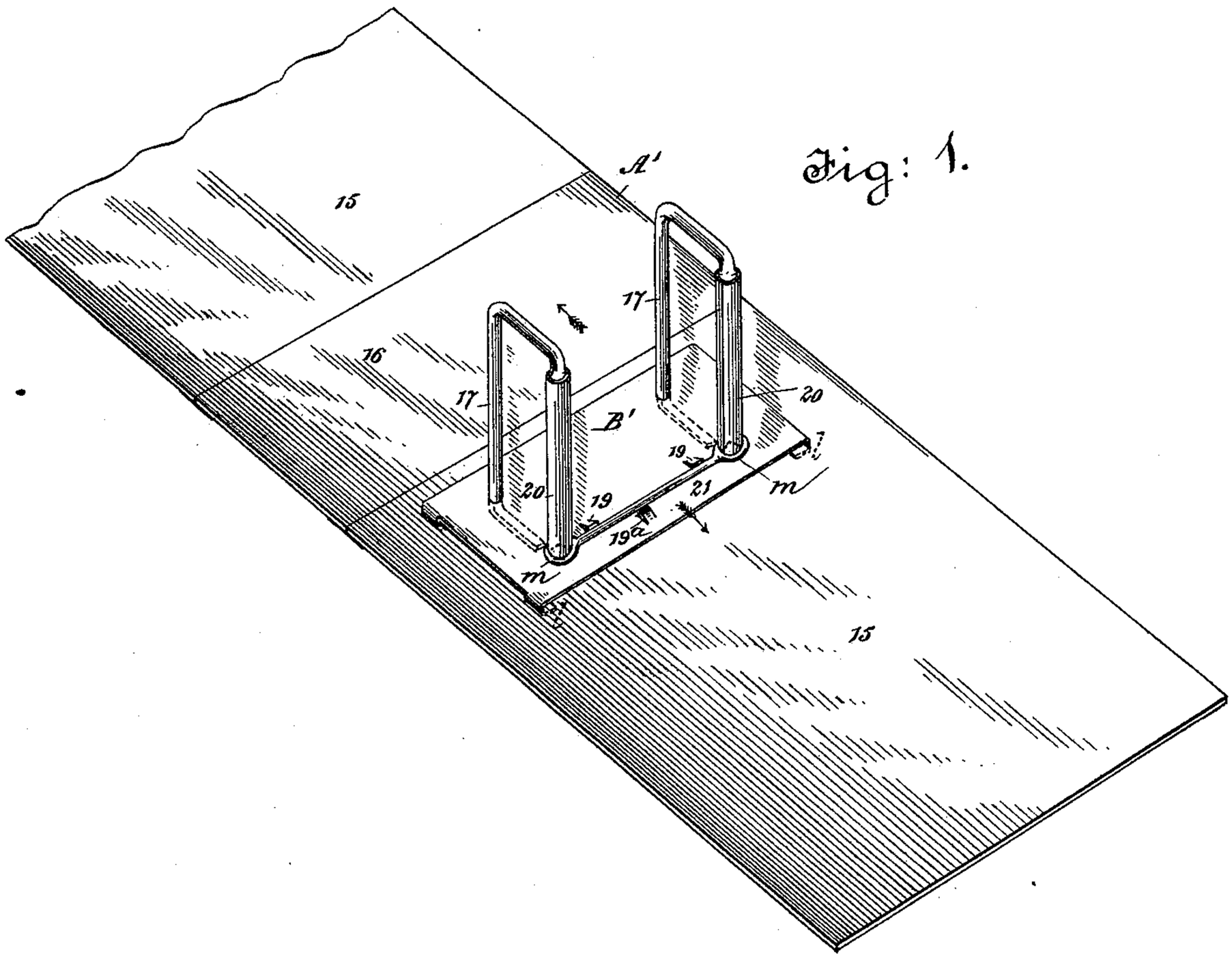
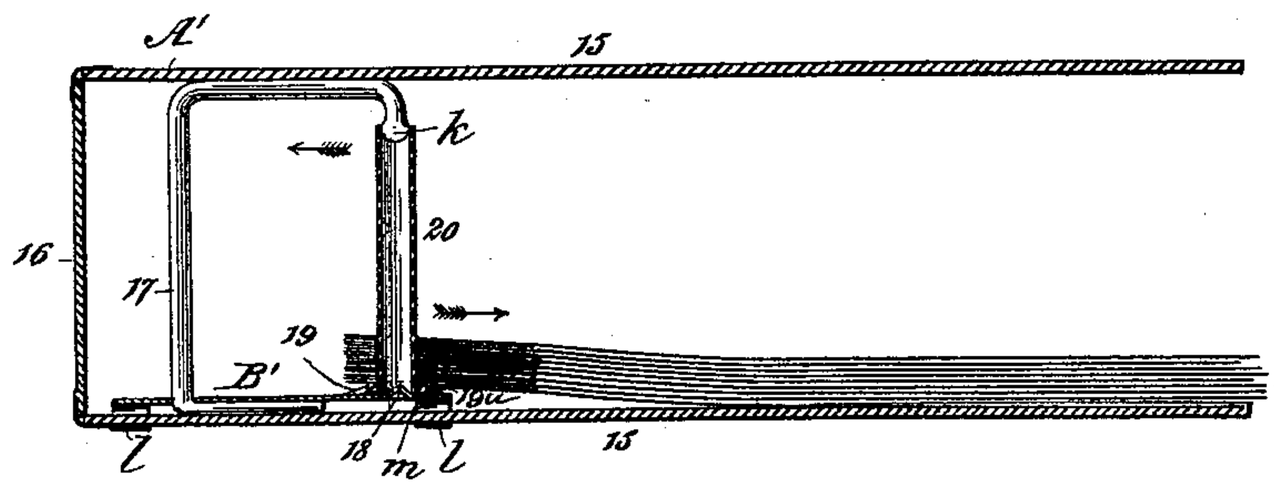


Fig: 2.



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(No Model.) 4 Sheets—Sheet 2.

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Fig: 3.

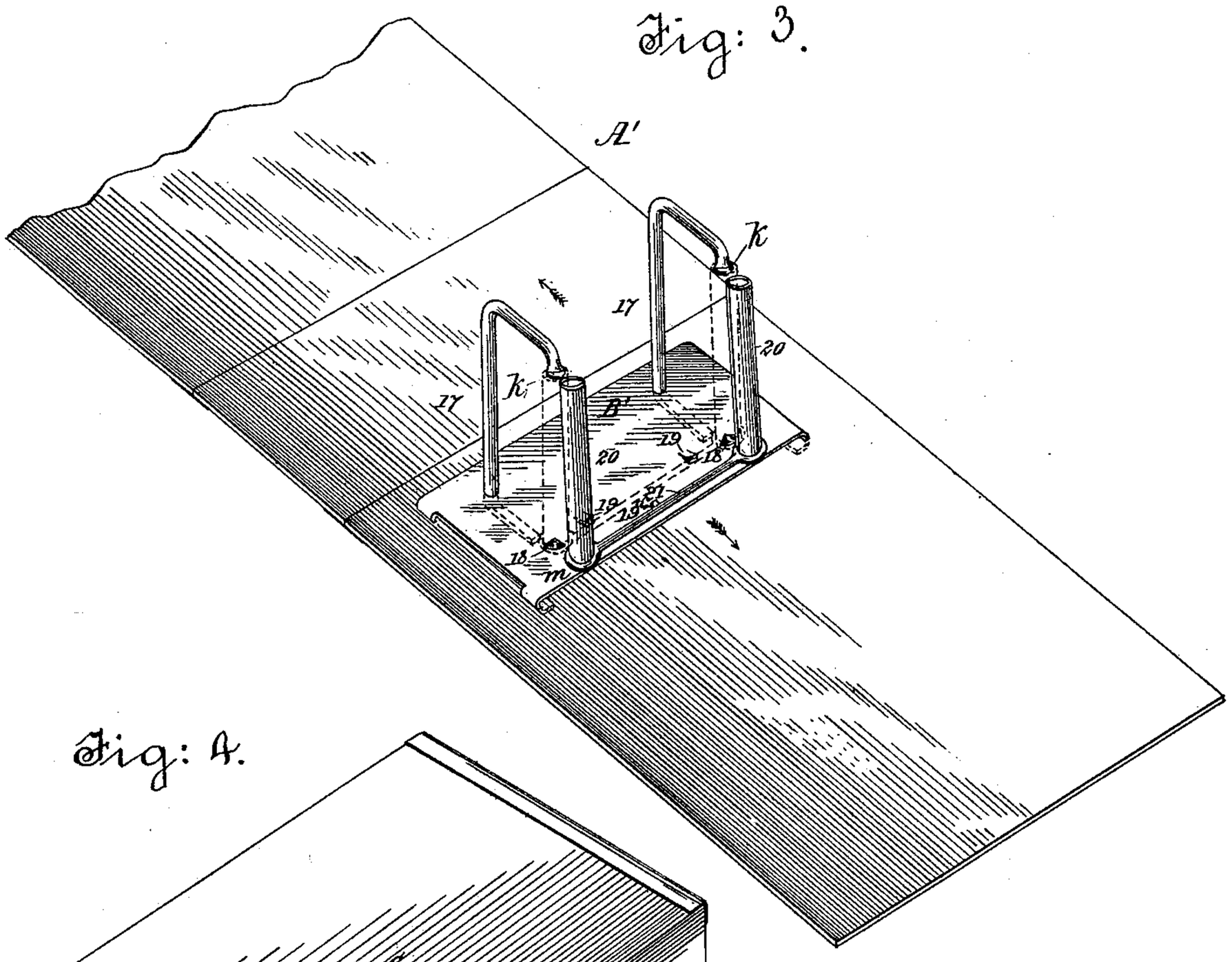

Fig: 4.

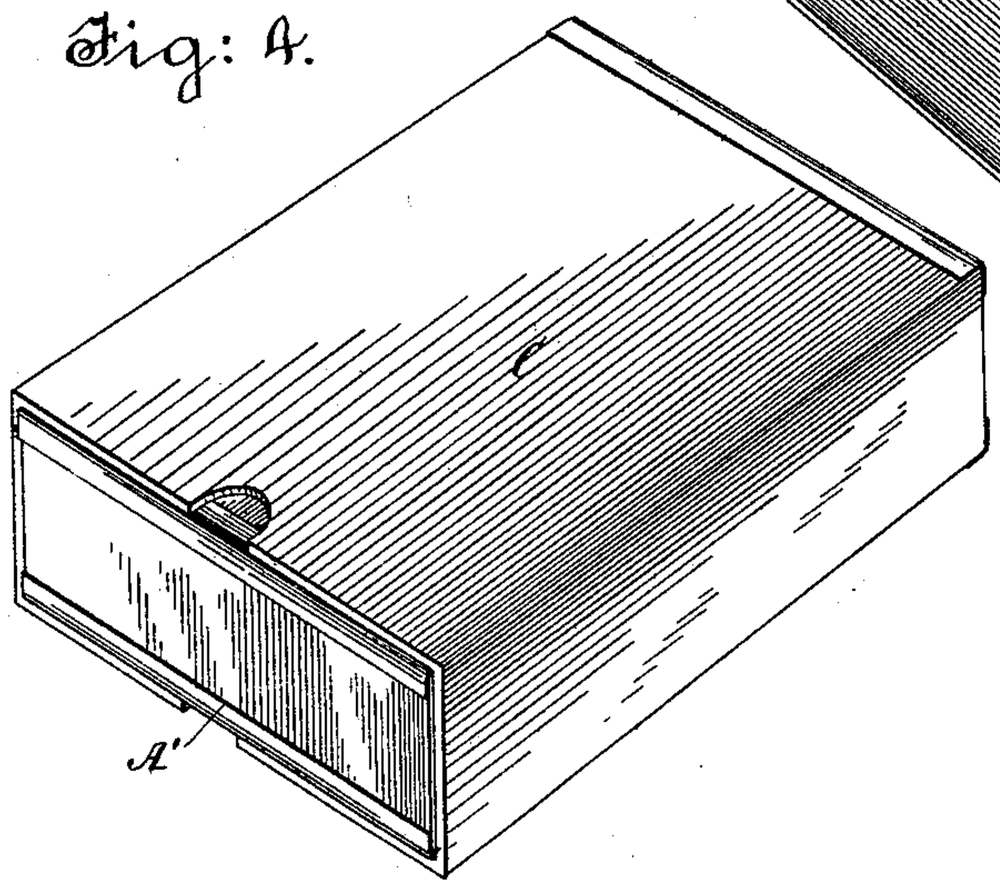

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Fig: 5.

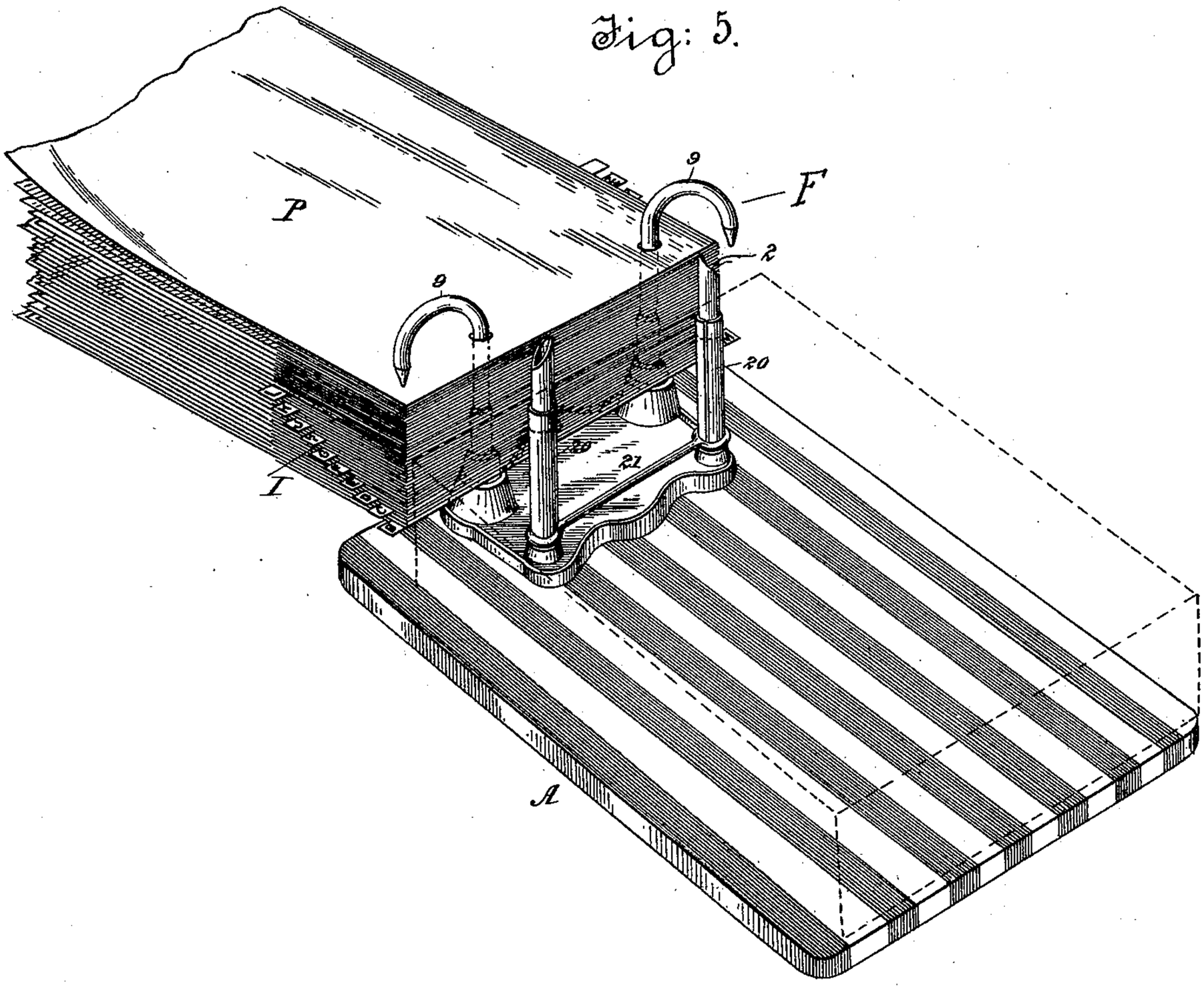

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Fig: 6.

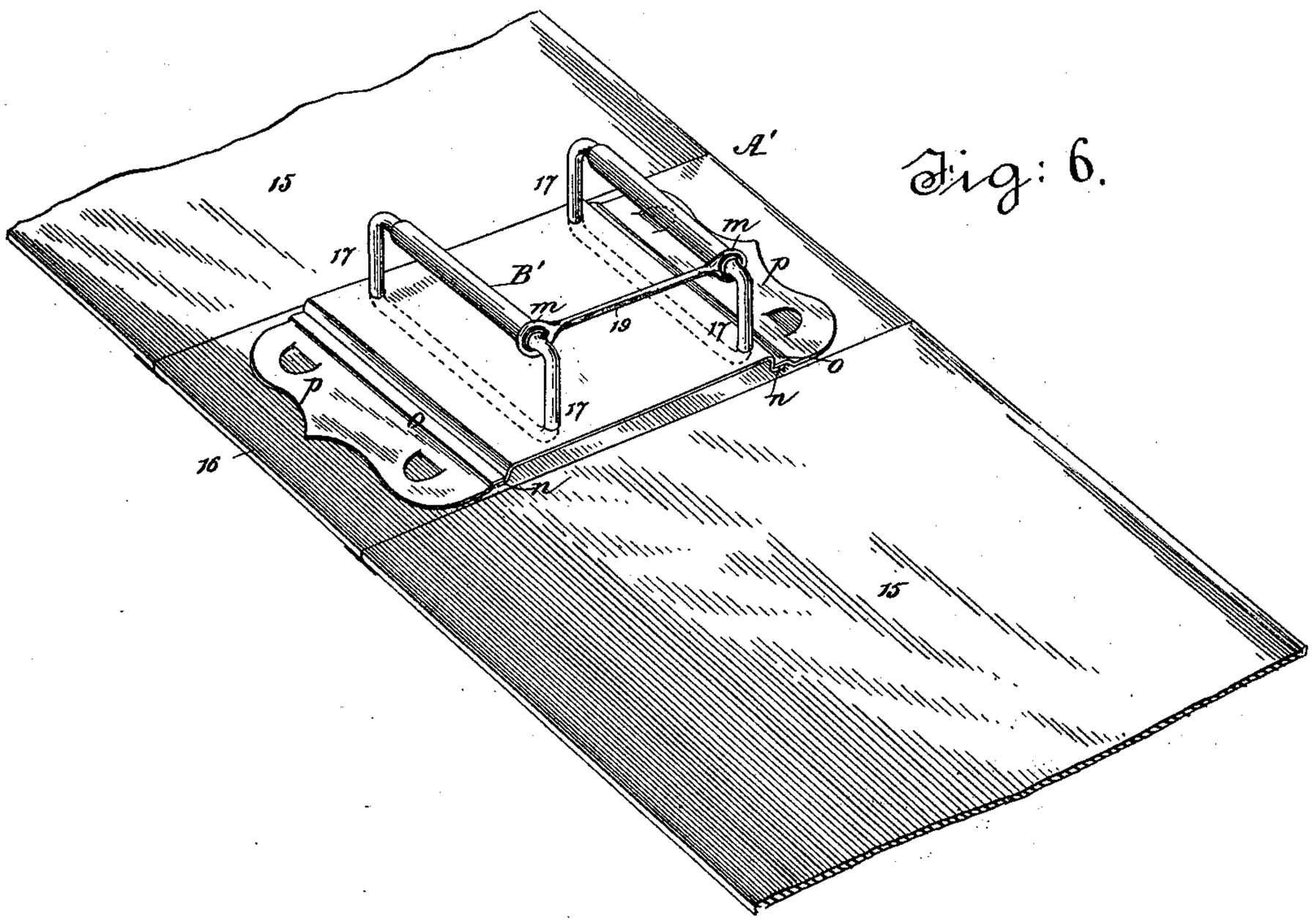
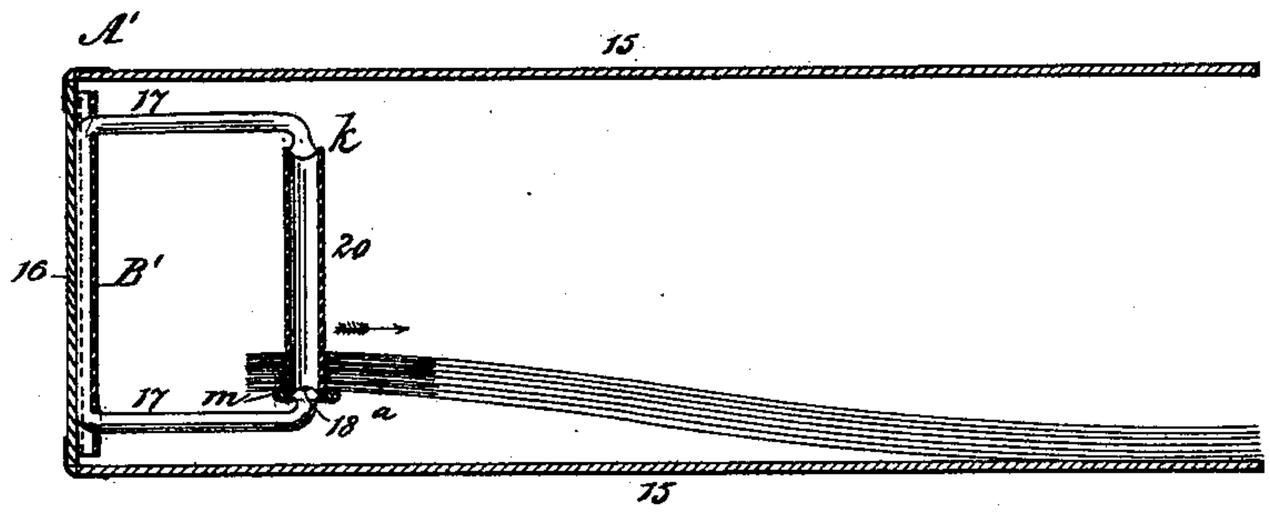


Fig: 7.



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UNITED STATES PATENT OFFICE.

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TRANSFERRING PAPER FILE AND BINDER.

SPECIFICATION forming part of Letters Patent No. 403,826, dated May 21, 1889.

Application filed January 19, 1887. Serial No. 224,821. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM A. COOKE, Jr., and CHARLES S. COOKE, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Transferring Paper File and Binder, of which the following is a specification.

This invention relates to transferring papers from temporary files and binding them in suitable covers.

Papers such as letters, bills, invoices, and other records printed or written on detached sheets, are usually placed on a temporary file, for convenience of ready reference, until such time as they can be filed away in a permanent receptacle. As these papers are usually filed under dates or letters, or classified in some convenient manner, it is essential that they should be transferred from the file to the permanent receptacle without disarranging their order. Furthermore, as frequent reference to them may be necessary, and it is not unusual that circumstances may require that they be taken out of the receptacle and again replaced, or for other papers to be inserted with the papers already filed away, the binding devices of the permanent receptacle must be adapted to permit such a disposition of papers.

The objects of our invention are, first, to provide a transferring paper file and binder on which, when connected together, the papers can be separated and part removed and the remainder retained on the file without disarranging the order or detaching them wholly from the fixed or removable part of the binder; second, to make the transferring-file capable of being used to take the papers from temporary files having either tubular or solid fixed wires; third, to adapt the binding and transferring devices to be opened for the abstraction and insertion of papers after some or all have been transferred from the removable to the fixed parts of the binder without detaching the transferred papers from the binder; fourth, to connect the transferring-file, which constitutes the detachable part of the binder, with the fixed part, so that it will be held with equal rigidity at both ends.

In the acccompanying drawings, Figure 1 is a perspective view of our improved transferring paper file and binder. Fig. 2 is a sectional side elevation of the same. Fig. 3 represents the binder with the transferring-file detached, showing, also, the manner of disconnecting it from the fixed members of the binder. Fig. 4 represents the binder-case. Fig. 5 represents a temporary paper-file with the transferring-file applied thereto preparatory to taking the papers off the temporary file. Fig. 6 is a perspective view, and Fig. 7 a sectional side elevation, of a modification of the invention.

Referring to the drawings, the cover A′ consists of two sides, 15 15, united by flexible connections with a back, 16, so that said sides can be folded or closed parallel to each other, like the covers of a book, as illustrated by Figs. 2 and 7. The binding devices consist of a fixed member connected with a suitable plate and a detachable member arranged to form an easily-made connection with the fixed member, said detachable member also forming the device by which the papers are transferred from the file to the binder.

The fixed members of the duplex binder consist of the wires 17 and 17 and studs 18 18. The wires consist of a stem, the lower end of which is fixed in any suitable manner to the plate B′, and an arm extending from the stem at right angles, (or curved or arched, if preferred,) and with the end pointed toward the studs and terminated with a ball, *k*.

The base-plate B′ is preferably stamped out of sheet metal, with prongs or points *l* formed at the corners, which, being passed through the cover, are bent up against the outside, fastening the plate securely to the cover. Parallel to the front edge of the plate, and equidistant from the stems of the fixed members, are the conical studs 18, formed by striking up the plate, or in any other suitable manner. For instance, they may be made and set on the plate. These studs align with the balls *k*, the two forming catches for opposite ends of the detachable member or transferring-file, hereinafter described. Between the studs 18 are stops 19 19 19ª, formed by striking up the plate, or, if preferred, they may be made separately and set upon the plate. Two of these studs align, while the third is nearer the front edge of the plate.

The detachable members of the binder consist of two tubes, 20 20, joined together at the

bottom by a bar or wire, 21, the ends *m* of which are bent around the tubes so as to embrace them, and fastened by soldering. These ends enlarge the bases of the tubes, and thus prevent the papers from slipping off. The tubes are of a length to fit between the base-plate B′ and the ends of the wires 17 17, with the studs 18 entering into the lower ends of the tubes and the balls *k* the upper ends, as shown in Fig. 2. In order that the tubes may be held immovable and prevented from slipping, the wires 17 should be adjusted so that the balls *k* will bear forcibly against the tops of the tubes and keep the latter pressed firmly against the base-plate. This result is attained by making the wires of spring-steel and adjusting their length or height so that when the tubes are attached the arms will spring up slightly to admit them.

The duplex detachable tubes 20 20 are used to transfer papers from the temporary file to the binder. The manner of doing this is illustrated by Fig. 5, and the operation is as follows: The papers P on the temporary file F, (which is of the construction described in our application for patent for "files for letters, papers, bills, and the like," bearing even date herewith,) with the index-leaves 1, are first transferred from the fixed wires or needles 2 2 to the arched wires 9 9, and the latter disconnected from the former. These positions of the parts mentioned are shown by the full lines in Fig. 5. The transferring-file is next detached from the binder and the tubes slipped or telescoped over the fixed wires or needles, as shown. Next the movable arched wires are moved into conjunction with the fixed wires and the paper retransferred to the fixed wires and tablet, as indicated by the dotted lines. The papers are now, however, filed upon the tubes 20 20. The transfer-wires are again disconnected from the fixed wires and the tubes drawn or lifted off the latter, the packet of papers and the index-leaves coming off with them. The transferring-file, with the packet of papers, is now ready for connecting with the binder. For this purpose the papers are placed on the covers to which the binding devices are attached, with the transferrer in the position indicated in Fig. 3. To make the connection, the tops of the tubes are first placed in connection with the balls *k*, forming thus a ball-and-socket joint; then, keeping the upper ends of the tubes pressed up against the balls, the lower ends are forced inward against the studs 18 18, and with sufficient pressure the arms of the fixed wires spring up far enough to allow the edges of the tubes to pass up over the studs, and the latter dropping into the lower ends of the tubes the attachment is made and the papers are connected with or bound in the covers. The bar 21 passes over the stop 19ª when the tubes rise over the studs, and it drops in between the three stops, which hold it firmly against lateral movement, and thus prevent the tubes from slipping from the studs, and also prevent disconnecting them by pushing the lower ends inward. In all cases the detaching should be done by first disconnecting the lower ends of the tubes and moving them out in the direction of the lower arrow in Fig. 3, and they are connected with the fixed wires by reversing the operation, as indicated in Fig. 3 by the upper arrow.

When the papers have been bound in, as stated, the covers can be closed over them like the covers of a book, and the whole put in a case, C, as shown in Fig. 4. The papers can be referred to as easily and certainly as when on the temporary file. They are indexed in the same way, and intermediate papers can be got at by transferring the superincumbent papers from the tubes to the fixed wires, and they can also be abstracted from the binder without removing from the files any papers other than those wanted, or disturbing or disarranging the order in which they were filed away. To abstract or insert papers, those above the place from which they are to be taken or in which they are to be inserted are transferred to the fixed wires, and then, the tubes being detached, the papers are taken off or placed on the tubes, as the case may be, and the tubes rejoined to the fixed wires and plate. Thus ready access may be had to any papers in the binder, either for examination or removal, without disturbing the order of the remaining papers. As may be inferred from the above, the binder may be used as a device or receptacle for originally filing papers, the same as a temporary file, and as a substitute for the latter.

The tubes 20 are slotted longitudinally, in order that they may adjust themselves to slight variations in the diameter of the fixed wires or needles.

The modification illustrated by Figs. 6 and 7 refers to the construction and position of the base-plate and the fixed wires. The plate B′ is attached to the back by sliding its beveled-down edges *n* in the groove between the edges *o* of the plates *p*, fixed to the back. The stems of the fixed wires 17 17 are between the plate and the back, and there are arms at both ends of the stems projecting out at right angles through suitable openings in the plate. The arms on each stem have their extremities turned toward each other and terminated with balls *k*, and the ends of the tubes join these balls when the transferrer is attached to the fixed wires. The connections or joints and the manner of attaching the tubes are substantially the same as previously described. This style of binder is more especially adapted to binding pamphlets and similar articles made up of attached sheets of paper; but it may be used for detached papers as well.

Where a temporary file has but one arched and one fixed wire, a single tube 20 may be used as a transferring-file to detach the papers and connect them with the binder. Where the detachable members 20 are not employed

to transfer papers from a file to the binder, but merely as a detachable part of the binder, it is obvious that the tubular form may be dispensed with, and they may be made of solid wires or rods with the ends provided with cups or sockets to engage the balls or studs of the fixed wires.

By making the binder in the manner described the important advantage obtained is, that when papers are to be abstracted or inserted the papers transferred to the fixed wires do not have to be removed from the binder in order to open the binder for the removal or insertion of the papers. After the superincumbent papers and index-leaves have been transferred it is only necessary to detach the tubes and remove or insert the papers. By making the connection between the transferring-file and the fixed wires and plate as stated a positive fastening is obtained for both ends of the detachable part, and thereby greater rigidity is given to the binding. Furthermore, the tubular form of the transferring-file makes it available to transfer papers from files having the fixed wires or needles either tubular or solid, as the tubes of the transferrer may be slipped over either with equal facility; hence the transferrer and binder may be used in conjunction with any of the files of the class herein referred to now in use.

The transferring-tubes may be long enough to project above the knobs or balls *k*, if preferred, and in that case the balls will serve to hold them steady and prevent lateral motion.

When a single tube is used, the lower end may be enlarged in any convenient way. For example, it may have a ring soldered to it, or its end may be enlarged by forming it with a flange.

We claim—

1. The combination of the transferring-file composed of united tubes 20 20, which form the detachable members of the binder, with the wires 17 17, having balls *k* on the ends, and the studs 18 18, substantially as specified.

2. The sequent combination of the tubular transferring-file, the fixed wires of a temporary file, and the fixed members of the binder, substantially as specified.

In testimony that we claim the foregoing as our invention we have hereunto set our hands this 8th day of January, 1887.

WILLIAM A. COOKE, JR.
CHARLES S. COOKE.

In presence of—
ISAAC P. HUBBARD,
WILTON C. DONN.