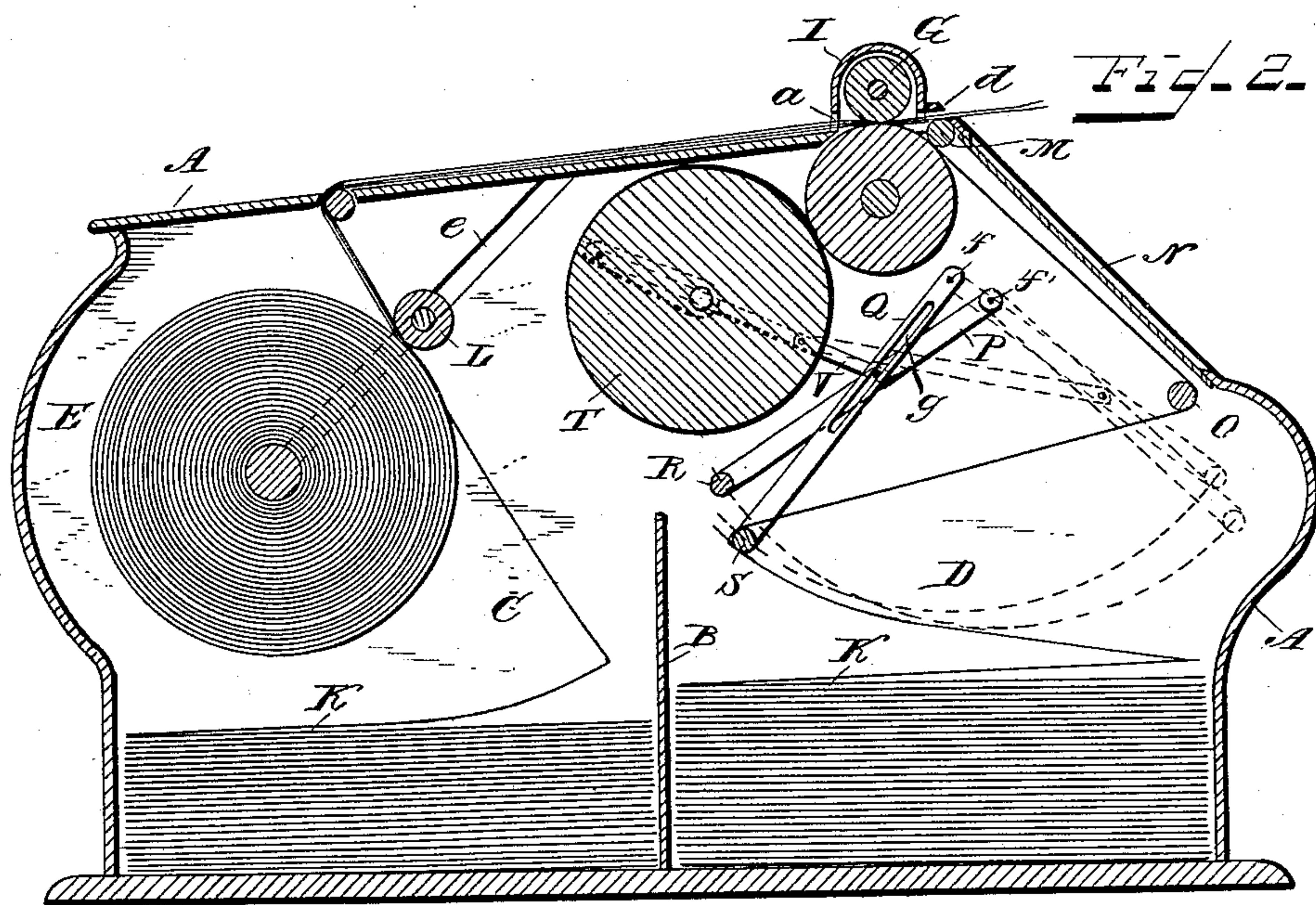
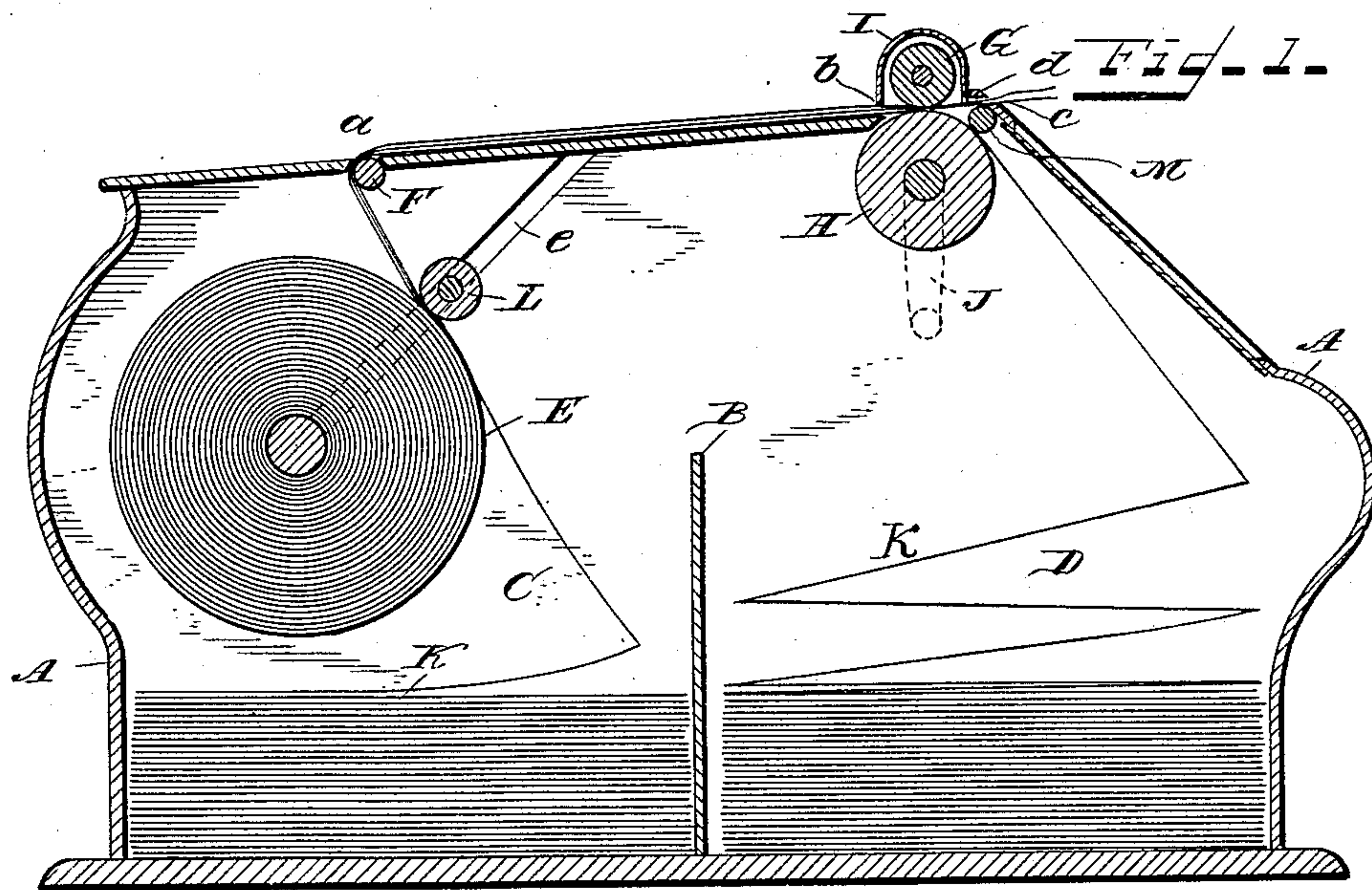


2 Sheets—Sheet 1.

No. 475,487.

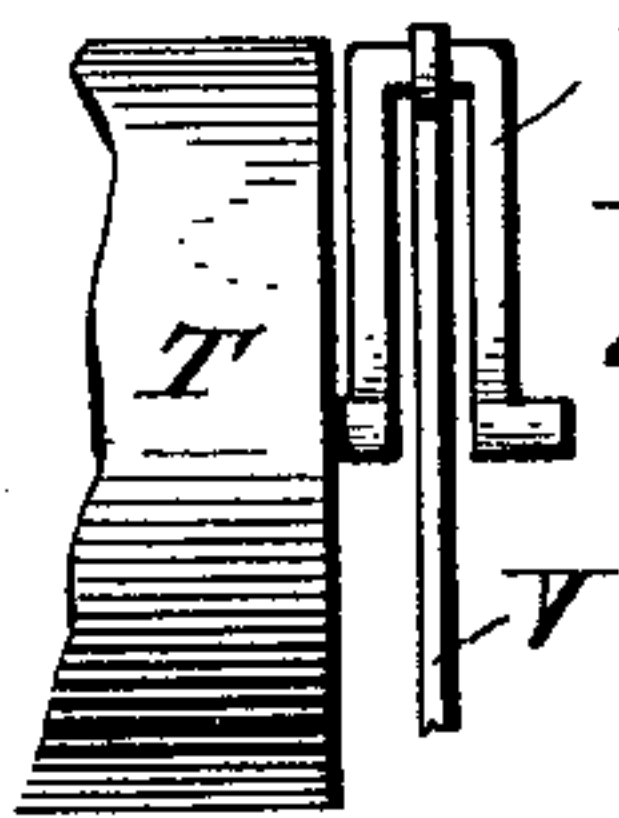
Patented May 24, 1892.



Witnesses.

J. Thomson & Cross.

E. H. Mookbae



Inventor.

3. - Sam'l. D. Cochran
by Receiver
his Attorneys.

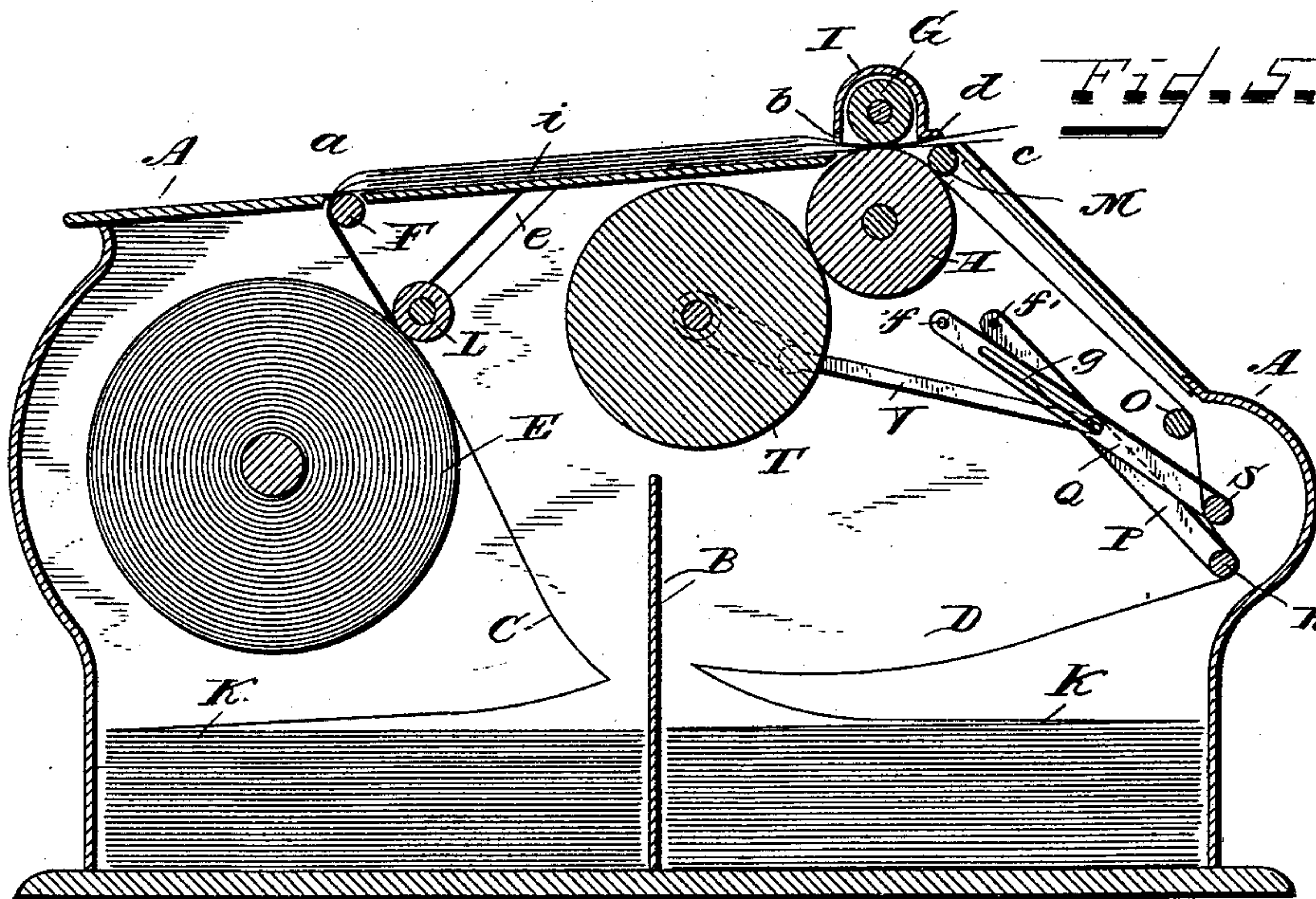
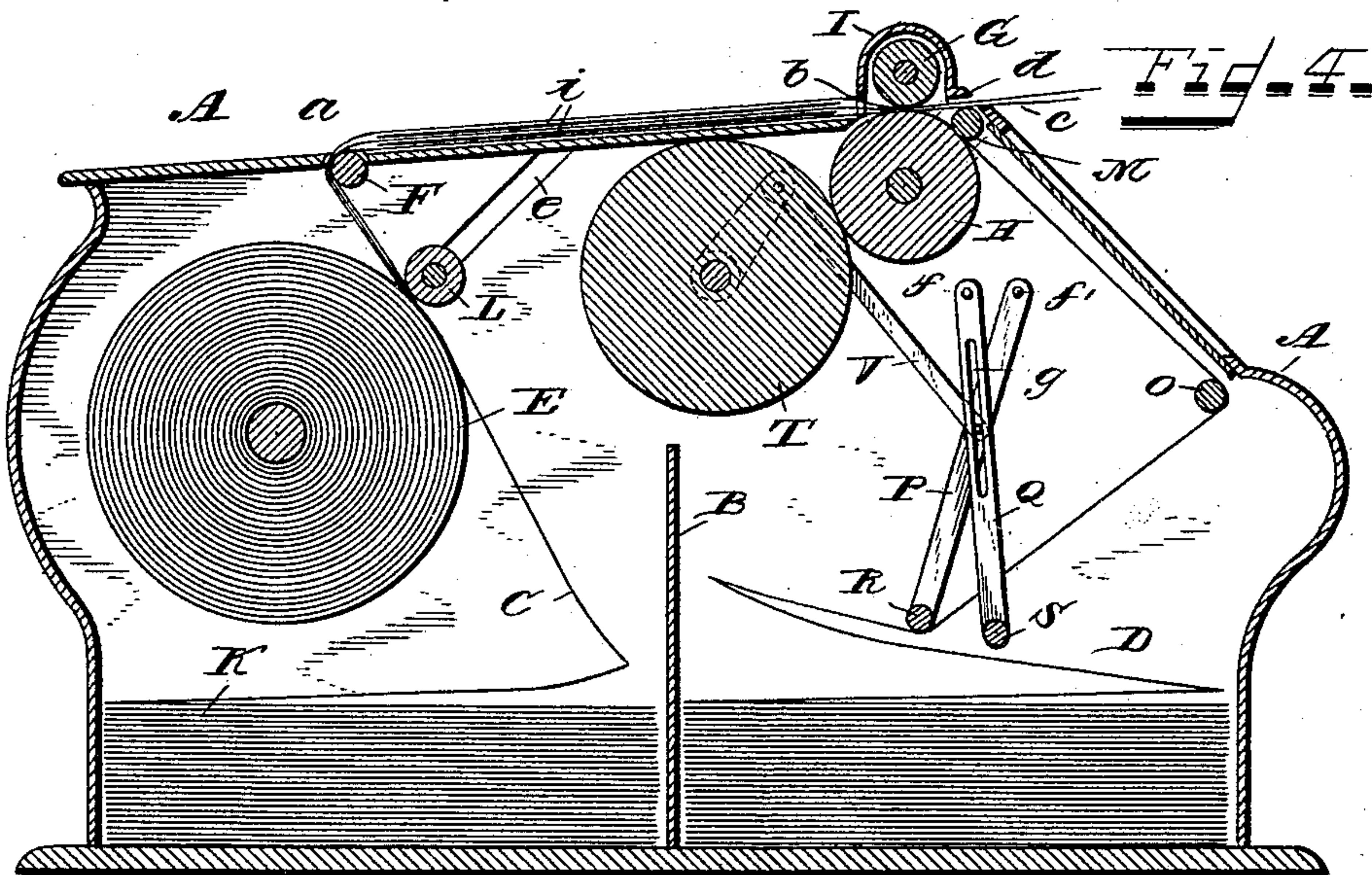
(No Model.)

2 Sheets—Sheet 2.

S. D. COCHRAN.
AUTOGRAPHIC REGISTER.

No. 475,487.

Patented May 24, 1892.



Witnesses.
J. Thomson Cross.
E. W. Hardinghaus

Inventor.
Sam'l. D. Cochran
by *Peck & Pector*
his Attorneys.

UNITED STATES PATENT OFFICE.

SAMUEL D. COCHRAN, OF WYOMING, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO ALBERT H. WALTON, TRUSTEE, OF SAME PLACE.

AUTOGRAPHIC REGISTER.

SPECIFICATION forming part of Letters Patent No. 475,487, dated May 24, 1892.

Application filed September 7, 1891. Serial No. 404,921. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL D. COCHRAN, a citizen of the United States, residing at Wyoming, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Autographic Registers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that class of now well-known autographic registers in which a continuous record-strip is kept within the box and is only accessible to the proprietor of the store; and it has for its object the improved manner of preparing the record-strip and the improved and simplified construction of the mechanism.

The novelty of my invention will be hereinafter set forth, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a longitudinal section in side elevation of a register embodying my invention. Fig. 2 is a corresponding view of the same under a modified form of construction. Fig. 3 is a detail plan of one end of the crank-roller. Fig. 4 is a view corresponding to Fig. 2 with the swinging arms in the position they occupy at the point when the paths of the fingers cross. Fig. 5 is a corresponding view showing the position of the record-strip when the fingers are about to return from their position at the right.

The same letters of reference are used to indicate identical parts in all the figures.

The box A, of any suitable construction, with a slanting top and vertical side walls, is provided with doors and locks for gaining access to its interior. It is divided by a vertical transverse partition B into two compartments C and D, the former of which I designate the "supply-compartment" and the latter the "storage-compartment."

E is the usual paper-roll journaled transversely in the compartment C and containing in this instance two webs or ribbons of paper, which pass up from it over a suitably-journaled guide-roller F and out through a slot *a* in the top of the box and thence forward along the top of the box between feeding-roll-

ers G H, the former of which is journaled in a housing I upon the top of the box and the latter is journaled within the compartment D. The roller H is preferably rubber-covered and is provided with a crank-handle on the outside of the box, as indicated by the dotted lines J in Fig. 1, while the roller G may be of metal and held upon top of the roller H by its weight alone or by the aid of springs. The top of the box under the housing is open, and slots *b c* are provided at each side of the housing for the free passage of the paper, the latter terminating in a sharp edge *d* to form a knife for severing the paper into checks.

So much of the apparatus, together with the transfer carbon sheets, (not shown,) is well known and forms no part of my invention.

Journaled in inclined slots *e* in the side walls of the box is a brake-roll L, which rests upon the roll E and follows the same to its center as the paper is unwound.

Heretofore the record-strip, which is preserved for reference, has been generally rolled upon a storage-roller within the box, so that to inspect any particular record it would require the unrolling of, perhaps, most of the roll, thereby entailing considerable trouble and loss of time. To obviate this difficulty, I previously prepare the record-strip by folding it in lengths equal to the torn-off checks in reverse folds, after the manner of an accordion-plait or bellows fold, into a compact book form and place it within the compartment C. If desired, the edges of the folds may be perforated. The record-strip is passed up under the roller L, over the roller F, under the paper on top of the box, into the housing I between the feed rollers H I, and thence down into the storage-compartment D. In the present instance I have shown the record-strip as passing from the roller H under a suitably-journaled guide-roller M; but this latter roller may be dispensed with, if desired. A carbon sheet *z*, Figs. 4 and 5, is placed between the lower check-strip and the record-strip, and the circumference of the roller H is just equal to the distance from the slot *a* to the point of contact of the rolls G H, so that upon each complete revolution of

the roller H the check strip or strips are projected through the slot *c* in position to be torn off against the knife *d* and the record-strip enters the compartment D. I have found from actual experience that when the record-strip is previously folded, as described, and placed in the compartment C it will upon entering the storage-compartment D resume its folded condition and lie compactly in the bottom of said compartment, as seen in Fig. 1, without the aid of any folding mechanism; but, as shown in Fig. 2, when it is desired to have the record-strip to lie close to the inclined glass-covered opening N, usually provided in these registers, I employ the following mechanism (shown in Fig. 2) for bringing the paper back to such position that it will resume its folded position, and the record-paper passes from the roller H over a guide-roller O, suitably journaled in the compartment D near the bottom of the opening N, and thence back into the compartment D. This mechanism consists of two arms P Q, pivoted at *f f'* to the inner side of one of the side walls of the box above the middle of the compartment D. Projecting horizontally and transversely of the box at the bottom of each of the arms P Q and carried thereby are two rods constituting guiding-fingers R S. Just behind the roller H and in frictional contact therewith is a suitably-journaled roller T, whose circumference is twice that of the roller H. This roller, as shown in Fig. 3, has upon one end, adjacent to the arms P Q, a crank U, from which a pitman V extends and is pivoted to the arm P, the pivot-pin passing through said arm and into a slot *g* in the arm Q, with which it engages. It will result from this construction and the adjustment of the parts that when the roller H is at rest the arms P Q are at the extreme end of their stroke at one side or other of the compartment D, as shown by the solid and dotted lines of Fig. 2. A complete revolution of the roller H throws the arms and fingers from the position shown by the solid lines to the position shown by the dotted lines, or vice versa, and it will be noticed that the arms are so hung that the paths of travel of the fingers cross, as indicated by the dotted lines, so that the finger R is above the fingers S upon one side and below it on the opposite side at the end of each stroke. In this way the fingers follow in the folds of the record-paper alternately above and below the same and carry it from the roller O into position to be compactly refolded in the bottom of the compartment D. If desired, the arms P Q may be duplicated upon the opposite side wall and be connected to the opposite ends of the fingers R S, which in such case would be sufficiently long to project from the paper at each side, and also, if desired, a second crank and pitman might be provided for these last-

named arms. As is usual in this class of apparatus, the check and record strips may contain any printed matter desired and may be consecutively numbered.

By the above construction and arrangement of the parts I produce an exceedingly simple and efficient register, and by previously folding the record-strip and then causing it to refold with its contained records in the storage-compartment any individual record may be readily inspected by opening the strip as you would the leaves of a book.

I am aware that it has been proposed to take the record-strip from a feed-roller and to provide mechanism for folding it in the storage-compartment, as described in Patent No. 438,835, of October 21, 1890, and I do not claim such construction; but,

Having thus fully described my invention, I claim—

1. The method of preparing and storing the record-strip of autographic registers, consisting in folding it back and forth in bellows folds before it is placed within the register and then placing it in the register and passing it up out over the writing-tablet and back into the register, where it automatically resumes its folded position.

2. In an autograph-register, the combination, with the tablet-face and the feed-rollers, of the record-strip K, previously folded into bellows folds and placed in the machine at one side of the tablet-face, said strip being led over the tablet-face and between the feed-rollers and deposited upon the opposite side thereof, whereby the supply of record-strip is carried in the machine in the folded form described and automatically resumes such folded form after having been passed over the writing-tablet and between the feed-rollers.

3. In an autographic register, the combination, with the tablet-face and feed-rollers, of means for supporting the check strip or strips carried in the form of a roll E and the record-strip K, previously folded into bellows folds and placed in the machine at one side of the tablet-face, said strip being led over said tablet-face and between the feed-rollers with the check strip or strips from the roll E and thence deposited in the machine, where it resumes its folded position, substantially as described.

4. In an autographic register, the combination, with the feed-roll H, of the roll I in frictional contact therewith, the crank U, carried by said roll H, the pitman V, arms P Q, and the guiding-fingers R S, substantially as described, and for the purpose specified.

SAMUEL D. COCHRAN.

Witnesses:

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E. H. MOCKBEE.