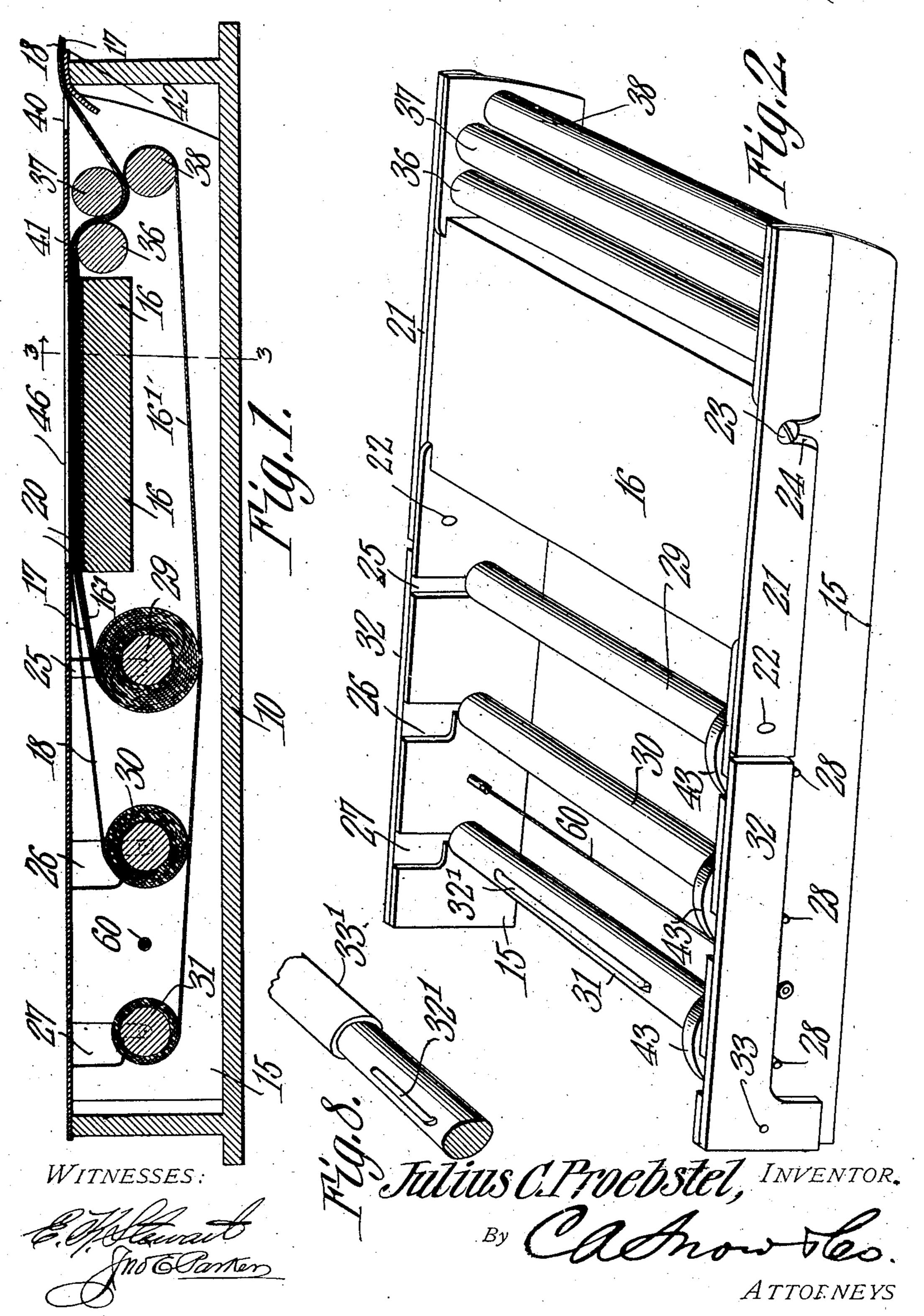
PATENTED MAR. 17, 1908.

J. C. PROEBSTEL.

RECORDING AND DUPLICATING DEVICE.

APPLICATION FILED APR. 29, 1907.

3 SHEETS-SHEET 1.



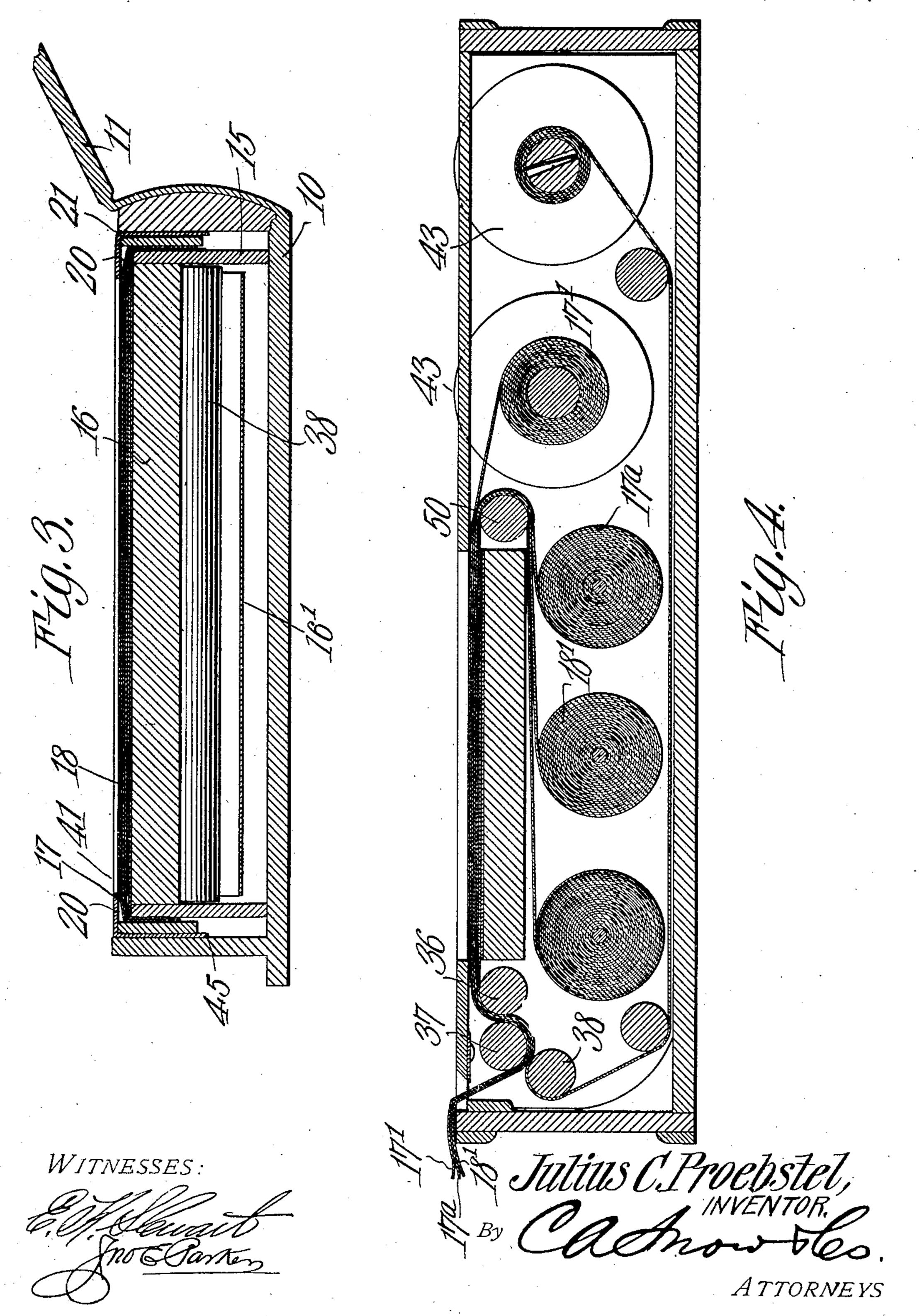
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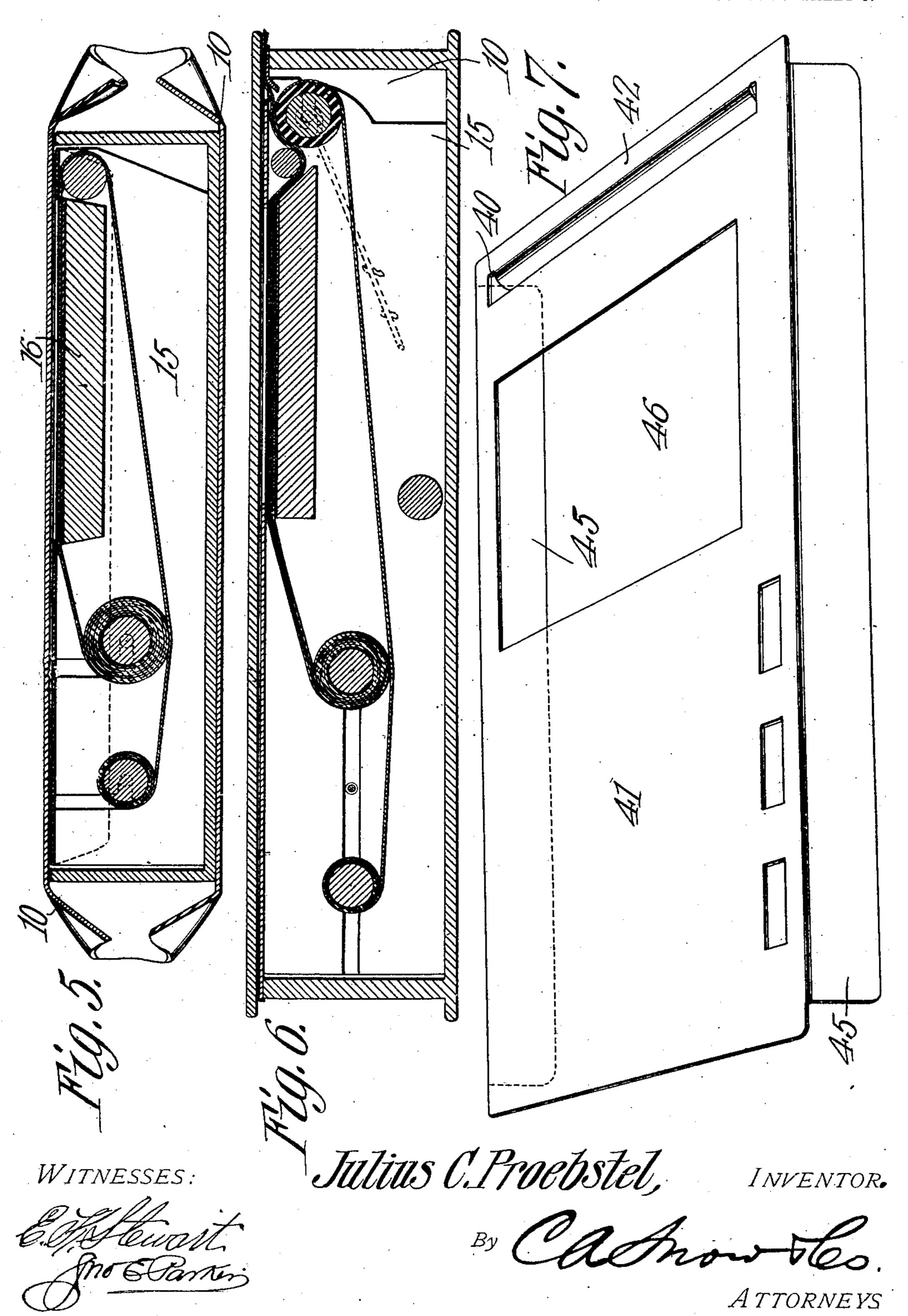


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3 SHEETS-SHEET 3.



UNITED STATES PATENT OFFICE.

JULIUS C. PROEBSTEL, OF PORTLAND, OREGON.

RECORDING AND DUPLICATING DEVICE.

No. 882,123.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed April 29, 1907. Serial No. 370,896.

To all whom it may concern:

Be it known that I, Julius C. Proebstel, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Recording and Duplicating Device, of which the following is a specification.

The principal object of the present invention is to provide a recording or duplicating device for the use of lecturers in keeping the notes of a speech in view, or for the recording of notes, bills, checks or other memorandum, and for providing duplicate slips or checks of any desired number which may be torn off in case of a memorandum of sale, one to be given the purchaser and the other to be presented to the checker or cashier's desk.

A further object of the invention is to provide a device of this class in which all of the parts may be arranged within a suitable box or casing that may be made of various forms, and in some instances may be in the guise of a book for the convenient use of a lecturer or minister.

A further object of the invention is to provide a device of this class in which all of the operating parts, record strip and the like may be readily removed from the casing for the use of the bookkeeper, while another apparatus containing fresh strips is placed in the case for the use of the salesman or clerk.

A still further object of the invention is to provide a device of this type in which all of the parts are concealed and protected by a detachable cover or plate that is provided with a suitable opening through which access may be had to a portion of the strip or strips for the purpose of making a record, or for displaying a record previously made.

A still further object of the invention is to provide a recording or duplicating device in which the strip or strips are so arranged as to be fed or ejected by a thumb or finger actuated roller within convenient reach of the

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing

from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a longitudinal sectional view of a recording and duplicating device constructed in accord- 60 ance with the invention. Fig. 2 is a detail perspective view of the inner frame and the parts carried thereby removed from the casing. Fig. 3 is a transverse sectional view of the device on the line 3—3 of Fig. 1 looking 65 in the direction indicated by the arrow. Figs. 4, 5 and 6 are views corresponding to Fig. 1 illustrating modifications. Fig. 7 is a detail perspective view of the detachable upper casing. Fig. 8 is a detail perspective 70 view of a portion of one of the upper strip carrying rollers, showing, also, a portion of the paper or cardboard tube to which the inner end of the paper strip is secured.

Similar numerals of reference are employed 75 to indicate corresponding parts throughout

In the construction shown in Figs. 1, 2 and 3, the casing 10 is made in the form of a book, one of the covers 11 being hinged, as shown in Fig. 3, and being foldable down over the working parts to conceal the same from view, and this type of casing is used in all cases where the device is employed for the purpose of keeping notes for the delivery of a lecture, sermon or speech, where the device may be placed on pulpit or speaker's stand, and operated from time to time as may be necessary in order to expose portions of the notes to

view during the delivery. Arranged within this casing is a removable frame of the character shown in Fig. 2, and comprising a pair of parallel side plates 15 which are connected to each other by a plate 16 that constitutes a platen and over which 95 the sheet or sheets of paper are passed to be exposed to view or for the purpose of making a record. In the construction shown in Figs. 1 and 3, a record strip 16' and two separate check strips 17 and 18 are employed, and 100 these are guided over the platen 16 in the manner hereinafter described, while between these sheets are arranged sheets of carbon or transfer paper 20, the edges of the carbon paper being turned down over the sides of 105 the plates 15 and being confined in place by strips 21 mounted on pins 22 projecting from the plates 15 and held in position by pins or screws 23 which enter grooves 24 formed in the strips 21, the side walls of the grooves 110 being inclined in order that the heads of the pins or screws may exert a slight cam or wedging action on the strips and thus tend to firmly bind the carbon sheets in place.

Near one end of the frame the two plates 15 are provided with openings 25, 26 and 27, the lower portions of these openings forming bearings for the support of the end pintles or shafts 28 of a number of rollers 29, 30 and 10 31 that are confined in place by holding strips 32 that are pivoted on pins 33 projecting from the plates 15. In order to remove the several rollers, it is simply necessary to turn the strips 32 up, leaving the tops of the 15 openings 25, 26 and 27 clear for the removal of empty rollers, and the insertion of filled rollers. These rollers are formed of wood or other material, and each is provided with a sharp key or knife edge 32' which is arranged 20 to bite into a tube 33' formed of heavy paper or cardboard, and to which is secured the inner end of the strip. The three strips 16', 17 and 18 are each prepared by pasting one end to a tube 33', and then winding the strip 25 thereon, after which the assembled strip and tube may be readily slipped on to any one of the rollers and may be rotated therewith, or as shown in the present instance the two strips 17 and 16' may be secured to a single 30 tube which is placed on the roller 29, while the remaining strip 18 is placed separately on the roller 30, there being as many strips as necessary, and the number of rollers being increased accordingly.
35 All of the strips pass over their carrying

rollers, over the platen 16, and thence to and over a roller 36, under a roller 37, and over a roller 38, these several rollers firmly engaging with the upper strips and serving when 40 rotated to feed the same forward. The main record strip returns to the roller 31, and is wound thereon, while the other strips 17 and 18 are moved upward through a discharge slot 40 in a cover plate 41, the end of 45 this cover plate having a sharpened edge 42 which may be employed for the purpose of severing the projecting portions of the strips, and when the device is used by a salesman, one of the severed strips may be handed to 50 the customer as a receipt, while the other goes to the cashier with the money received for payment.

The several rollers 29, 30 and 31 are provided with thumb disks 43 which project slightly through openings formed in the cover plate 41, and have roughened or milled peripheries for convenient engagement by the thumb or finger of the operator, and in use it is merely necessary to turn the operating disk of the roller 31 in order to cause the record strip to be wound thereon, this movement being transmitted through the strip to the several rollers, 36, 37 and 38 and causing the remaining strips to be fed forward across the platen and out through the discharge

slot. The other rollers may be turned if necessary in order to position the strip or to make alterations, if desired, and such alterations will, of course, be recorded on the strip that remains within the casing.

The protecting plate 41 has depending flanges 45 which extend down close to the inner walls of the main casing 10, and this plate serves to conceal and protect all portions of the device. The protecting plate is 75 provided with an opening 46 immediately above the platen 16, so that a record may be conveniently made, or a record previously made on a strip may be brought into view.

In the construction shown in Fig. 4 three 80 separate check strips 17', 17^a and 18' are used, and these are mounted on separate rollers arranged within the frame and located in this instance under the platen. The construction otherwise remains the same as that 85 previously described, with the exception that an auxiliary guiding roller 50 is employed for the purpose of directing the strips in the proper course.

In the construction shown in Fig. 5 the 90 record strip is used without any check strips and is merely wound on one roller as it is unwound from the other. This construction is especially adapted for the use of lecturers, ministers, and other speakers for the pur- 95 pose of holding notes which may be brought into view during the delivery of a speech.

In the construction shown in Fig. 6 a single check strip is employed in connection with a single record strip and in this instance 100 only two of the feeding rollers are employed for the transmission of movement from the record strip to the check strip.

In order to secure the necessary friction of the rollers and prevent the same from 105 turning loosely, the side plates 15 are connected together by a tension rod 60 which may be adjusted for the purpose of forcing the side plates against the ends of the rollers and frictionally binding the same in order to 110 hold the strips as taut as may be desired.

I claim:—

1. In a device of the class described, a casing having an open top, a frame arranged therein and removable bodily therefrom, 115 said frame comprising a pair of opposite side plates, and a cross piece connecting the side plates and forming a platen, the width of such cross piece being considerably less than the length of the side plates, slots arranged at 120 the rear ends of said side plates, paper strip carrying rollers having end pintles disposed within said slots, a strip guiding roller also journaled in the side plates at a point beyond the discharge edge of the platen, and a detach- 125 able covering and protecting plate extending over the frame and provided with an opening through which that portion of the strip passing over the platen is exposed.

2. In a device of the class described, a cas- 130

ing, a frame bodily removable therefrom, a record strip, a pair of carrying rollers therefor, a manually operable means on said rollers for effecting movement of the strip in 5 either direction, a check strip carrying roller, a check strip arranged thereon, a plurality of feed rollers between which the check strip and record strip are guided and held, a platen over which the strips are fed, means 10 for-clamping carbon or transfer sheets in place over the platen and between the strips, the feeding rollers serving to transmit movement from the record strip to the check strip in both directions to adjust the position of 15 the strips with respect to the platen, or to carry off portions of the strips on which records have been made.

3. In a device of the class described, a casing, a frame bodily removable therefrom and 20 comprising a pair of spaced side plates, a platen serving to connect said side plates, a record strip, a pair of record strip carrying rollers arranged to the rear of the platen, manually operable means on said rollers to 25 effect movement of the record strip in either direction, a check strip, a roller carrying the same, and a tension rod connecting the side plates and serving to bind the same against the ends of the rollers to retard rotative 30 movement of the latter.

4. In a device of the class specified, a casing, a frame bodily removable therefrom, a plurality of rolls having shafts or pintles,

strips carried by said rollers the frame having recesses for the reception of said shafts or 35 pintles, pivotally mounted strips serving to hold the shafts or pintles within the recesses, friction disks secured to the ends of the rolls and arranged for manual operation, a platen connecting the members of the frame and 40 over which the strips are fed, and a pair of pivotally mounted carbon sheet confining strips for holding the ends of carbon sheets in

place between the strips.

5. In a device of the class specified, the 45 combination with an open top casing, a platen, a frame carrying the platen, a plurality of rollers journaled in the frame, a record strip and check strip, mounted on said rollers, a friction disk arranged on each roller 50 for permitting manual operation of the same, and a covering plate extending from the frame and provided with an opening in alinement with the platen and with an opening in alinement with the friction disk, said plate. 55 having a discharge slot for the check strip, and the end of the plate being sharpened to form a severing edge for said check strip.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature 60

in the presence of two witnesses.

JULIUS C. PROEBSTEL.

Witnesses: JNO. E. PARKER, FRANK S. APPLEMAN.

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