Feb. 15, 1938. W. C. PFEIFFER ET AL 2,108,564

AUTOGRAPHIC REGISTER

Filed Oct. 2, 1934 3 Sheets-Sheet 1

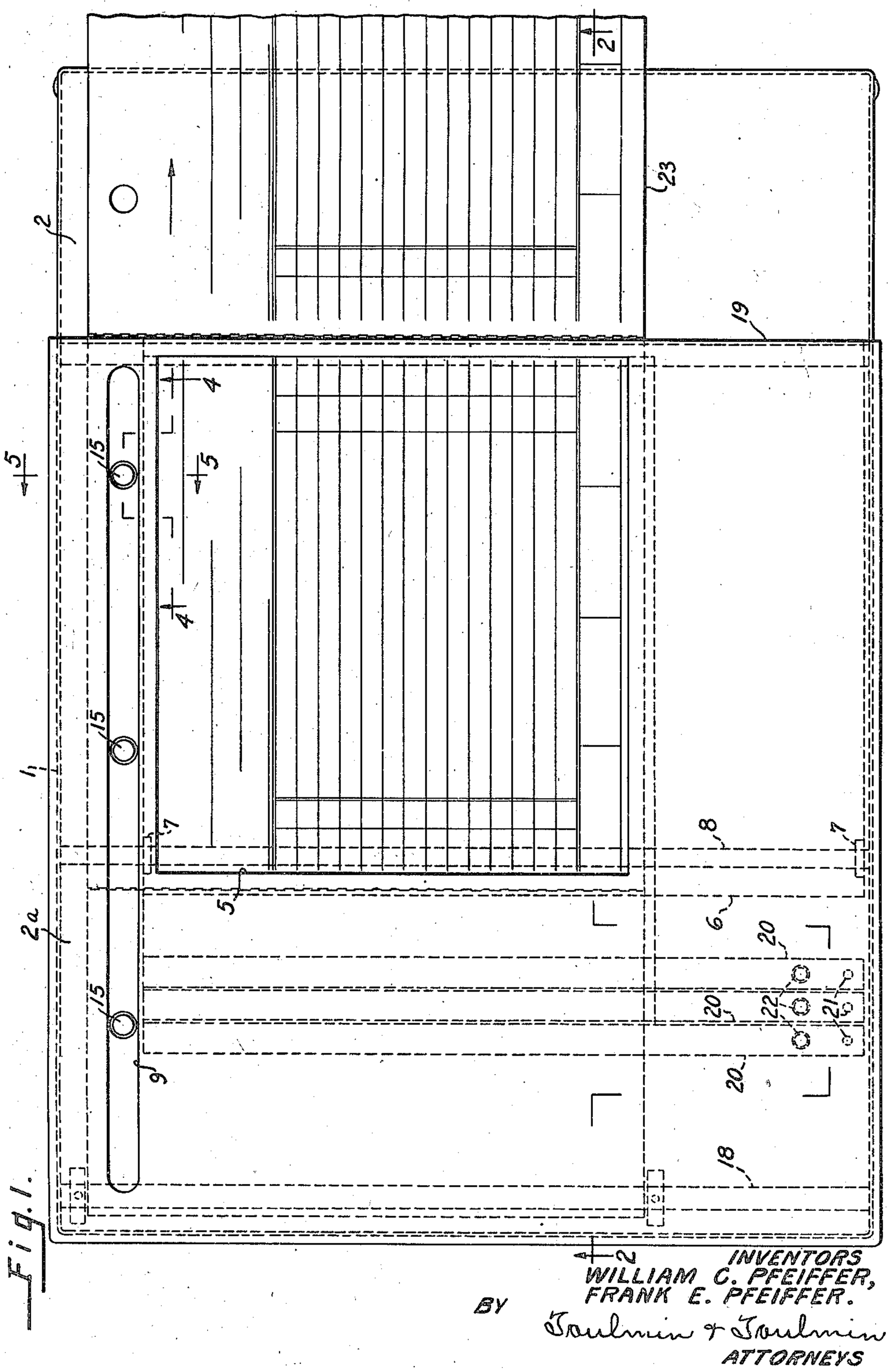


Fig. 1.

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AUTOGRAPHIC REGISTER

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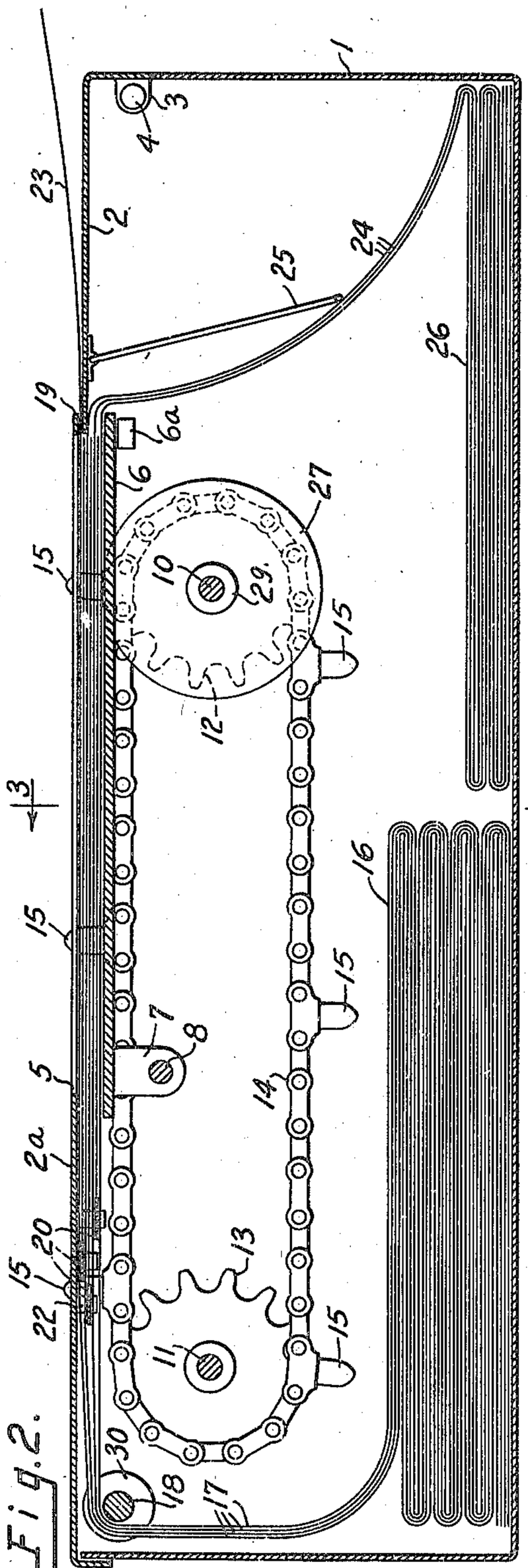


Fig. 2.

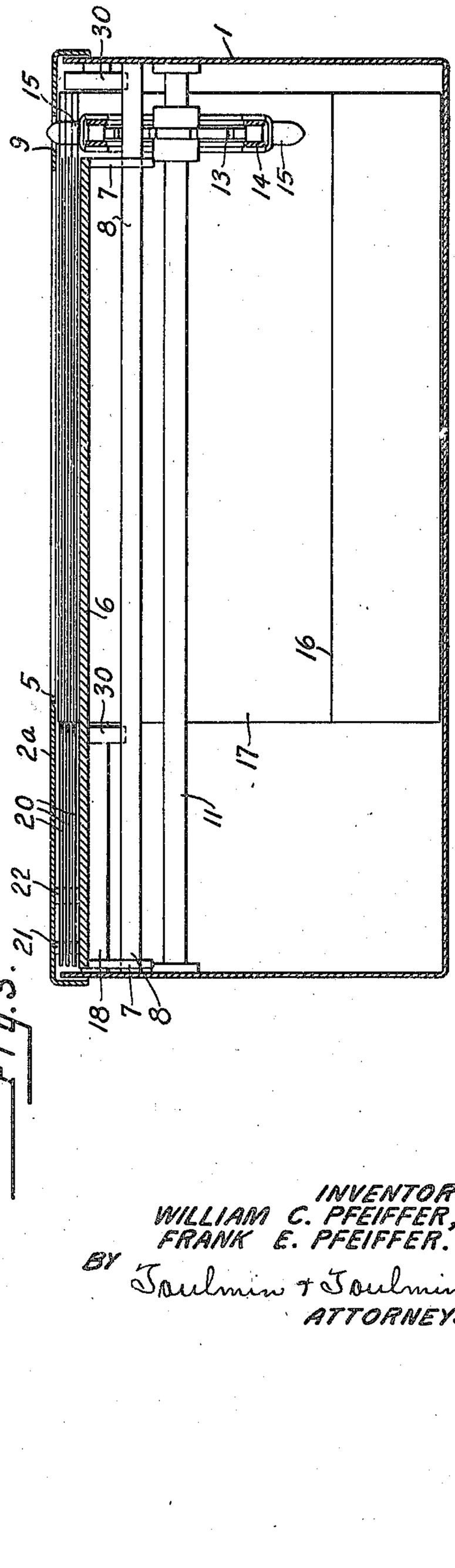


Fig. 3.

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Filed Oct. 2, 1934 3 Sheets-Sheet 3

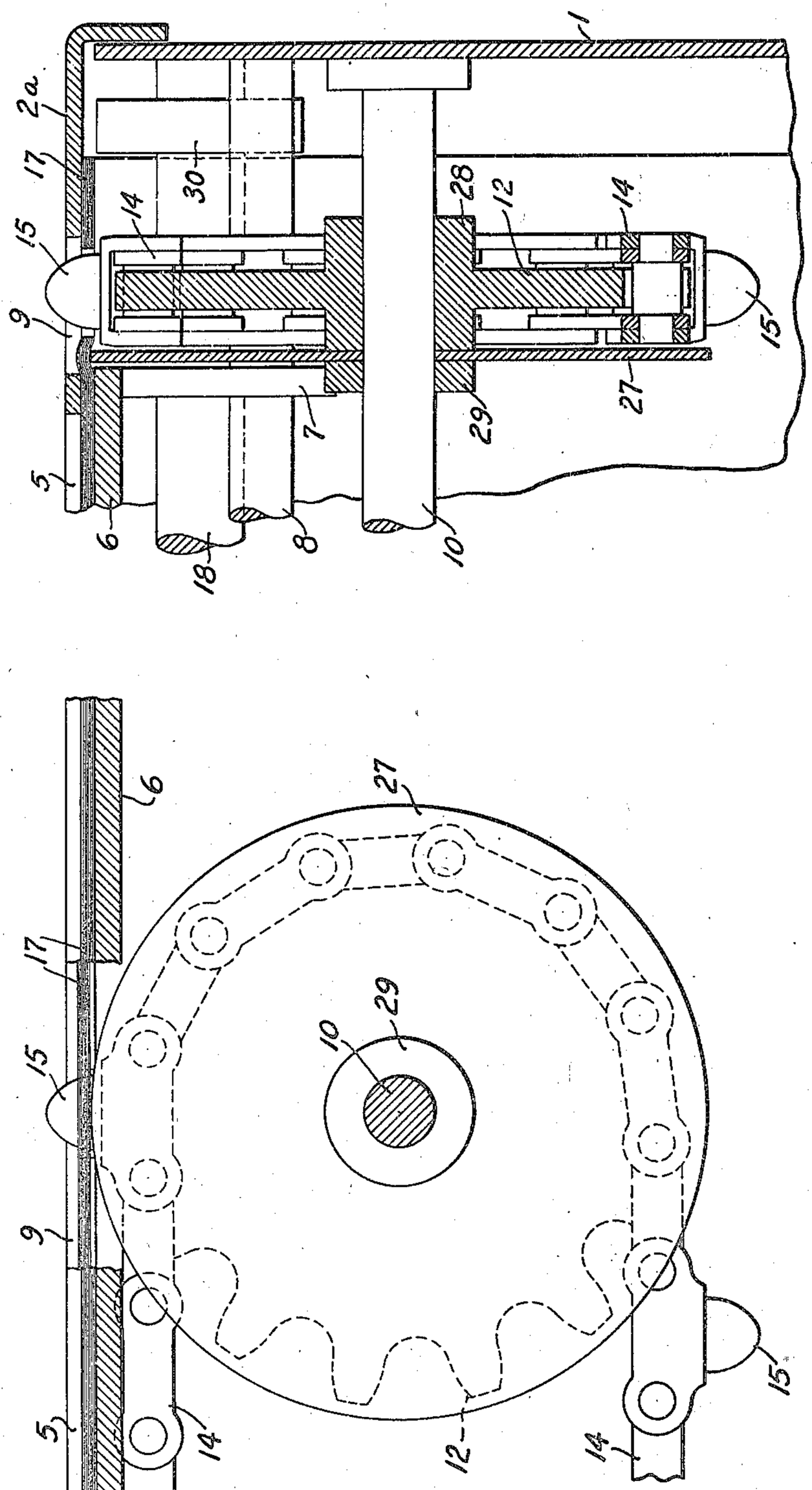


Fig. 5.

Fig. 4.

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UNITED STATES PATENT OFFICE

2,108,564

AUTOGRAPHIC REGISTER

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Application October 2, 1934, Serial No. 746,543

14 Claims. (Cl. 282—21)

This invention relates to improvements in autographic registers, and has for its object to use the same distance between creases for the width of the tickets and to vary the length of the tickets by varying the width of the sheet folded on the creases. By this arrangement it is possible to have a large number of lengths of sheets without changing the throw of the machine. By changing the size of the writing opening, or the size of the form, and writing on the sheet lengthwise rather than the usual crosswise position, this is accomplished.

It is understood that the variations in tickets take place primarily in length and that the variations in width are very much less. In other words, there are a large number of different tickets of similar widths. By selecting four standard widths of 8½, 6½, 5½, and 4¼ it is only necessary to have two types of machines; machines able to handle a 5½ width and the 8½ width.

This permits variation in length from 3'' to 11'', and variation in widths by either varying the machine throw or by multiplying the standard distance between the actuating pins. On one machine the spacing between pins is 2¾'', which permits of using either a 5½'' wide ticket or a 2¾'' ticket. On the other type of machine the distance between pins is either 4¼'' or 8½''.

Another advantage of the invention is that the press can be set up for the printing of standard forms with a very small variation, so as to eliminate the make-ready and set-ups of the press. The only change that need be made in the machine is either to adjust a pair of guides or substitute a lid with a larger or a smaller opening over the writing table. By this arrangement there is a constant throw, that is, a constant width of form between creases and a variation of the length of the sheet, which becomes a transverse dimension of the sheet.

It is another object to provide means of supporting carbon sheets between the paper sheets, and of using the actuating pins as the means for actuating the chain and pins. The machine may be operated either by hand, through the grasping of the pins, by crank, or by electric motor.

It is also an object of the invention to provide an autographic register casing with a removable and replaceable cover having a writing opening therein, and parallel with said opening a slot through which aligning and feeding means for strips of paper extends, said means comprising pins for projecting through holes in the strips of paper that may be engaged by the hand of the operator for feeding the strips of paper over a writing table, suitably supported by the casing.

These and other advantages will appear from the following description taken in connection with the drawings.

Referring to the drawings:

Figure 1 is a top plan view.

Figure 2 is a section on the line 2—2 of Figure 1.

Figure 3 is a section on the line 3—3 of Figure 2.

Figure 4 is a section substantially on the line 4—4 of Figure 1, with part of the table broken away.

Figure 5 is a section substantially on the line 5—5 of Figure 1.

The operating mechanism of the autographic register is inclosed within a casing 1, which has at one end a lid 2 and at its other end a lid 2*a*. The lid 2 is pivoted to the casing by means of ears 3 and pivots 4. The lid 2*a* has therein an opening 5 for use in writing upon strips of paper supported beneath the lid 2*a*. Supported within the casing and immediately beneath the opening 5 is a table 6, which has at one end ears 7 by which it is pivoted, by means of a rod 8, to the sides of the casing. The table is supported at its other end by means of studs 6*a* located on the sides of the casing immediately above the upper edges thereof.

Extending along one side of the lid 2*a* is a slot 9. This slot extends substantially the full length of the part 2*a* adjacent one edge of the table, and is adapted to receive studs 15, later on to be described. In the casing and supported by the sides thereof are two shafts 10 and 11. On the shaft 10 there is a sprocket wheel 12, while on the shaft 11 there is a sprocket wheel 13. These wheels are connected by a sprocket chain 14, which has extending outwardly therefrom a plurality of studs 15. As the sprockets rotate and the chain and studs travel the studs will pass through the slot 9, from one end thereof to the other.

In the end of the casing, beneath the lid 2*a*, is a stack of fan-folded strips of paper 16, arranged in a group containing a plurality of strips. The superimposed strips form a group 17 which passes over a rod 18 adjacent one end of the casing. After the group of strips of paper has passed over the rod 18 it is engaged by means of the studs 15 entering into suitable holes in the strips of paper so that the traveling of the studs will cause the strips of paper to travel lengthwise along the top of the table and beneath the opening in the lid 2*a*.

The studs as they travel through the casing enter the slot 9 and project therethrough, partly above the top of the lid, so that they may be engaged by the hand of the operator to advance and feed the strips of paper forwardly. As the group of strips of paper is advanced the upper strip 23 passes out of the casing above the lid 2 and beneath a part 19 of the lid 2*a*, which serves to hold down the free ends of the strips of paper. The other strips of the group pass into

the end of the casing beneath the lid 2, as shown by the numeral 24, and are engaged by a clip 25 for properly positioning the strips in a pile 26 in the end of the casing beneath the lid 2.

For the purpose of supporting sheets of carbon paper interleaved between the strips of paper the lid 2*a* has attached thereto a plurality of carbon carrier plates 20, each attached to the lid by means of a pin 21 adjacent one end of the plate, and a pin 22 slightly more removed from that end of the plate. It will be observed from an examination of Figure 1 that these plates are supported at the side of the lid 2*a* remote from the slot 9. It will also be observed from an examination of Figure 1 that these plates extend from the pins 21 and 22 to a point adjacent the slot but not fully to the slot. By this means the support of the carbon sheets does not interfere with the operation of the sprocket chain for feeding the strips of paper forwardly over the table.

After entries have been made upon the tickets or sheets of paper the group is advanced by applying manual pressure to one of the studs 15. The lower strips of the group pass into the end of the casing, while the upper strip remains out and may be torn off. For the purpose of tearing off this upper strip the part 19 may serve as a cutter blade. Instead of using the studs for advancing the feeding member or chain, a crank or other suitable instrumentality may be attached to one of the shafts 10 or 11.

On the shaft 10, adjacent the hub 28 of the sprocket 12, is a disc 27 held in position against the hub by means of a collar 29. This disc is a little larger in diameter than the sprocket and is adapted to loosen the strips of paper from the studs 15 so that as the sprocket advances for feeding the paper the studs may be easily withdrawn from the holes provided therefor in the strips of paper.

In Figures 4 and 5 the strips of paper are shown to be slightly elevated by the upper edge of the disc so that if there should be any tendency of the strips of paper to stick to the lugs this disc will release them so they can be easily removed therefrom. In order to accommodate strips of paper of varying widths the rod 18 is provided with guide collars 30. There are two of these collars, arranged apart corresponding to the width of the strips of paper being used in the register.

It will be observed that the lid 2*a* may be readily removed and replaced by another lid having an opening or hole therein for writing purposes of greater or less dimension transversely of the casing. From an examination of Figure 1 it is evident that strips of paper much wider than those illustrated could be used without interfering with the attachments for the carbon supports. All that would be necessary to do to adjust this register for wider strips of paper would be to remove the lid 2*a*, as shown in Figure 1, and replace it by another lid with a larger transversely extending opening. In this event one of the collars 30 would have to be moved near the wall of the casing to provide for wider strips of paper.

In use the register casing is placed in front of the operator with one side adjacent the operator. The strips of paper may be fed across the table by engaging one of the studs 15 with the thumb or finger of the right hand to advance the strips of paper so that a group of tickets will be brought into proper position on the table, beneath the opening in the lid. After the strips have been thus advanced the used tickets may be torn off along their folds or creases, also by the right hand of the operator. For this purpose the part 19 is used, the creases of the strips having been advanced to the edge of this part. While the slot through which the writing studs 15 pass is located on the side of the lid opposite the operator, this slot may be located on the side of the lid adjacent the operator, with the carbon supports supported on the opposite side of the lid.

It will be understood that the various figures of the drawings exaggerate the relation of the strips. This is done for clarity and ready illustration purposes.

It will be understood that we desire to comprehend within our invention such modifications as come within the scope of the claims and the invention.

Having thus fully described our invention, what we claim as new and desire to secure by Letters Patent, is:

1. In an autographic register, a casing, a pair of shafts rotatably supported in the casing, a sprocket wheel on each shaft adjacent one side of the casing, a writing table in the casing, a paper-feeding instrumentality on the sprocket wheels at one edge of the table, and a paper-stripping disc on one shaft adjacent the sprocket wheel thereon.

2. In an autographic register, the combination with a general casing having a top plate with an opening elongated lengthwise of the machine and a slot elongated in the same direction, and having also a table beneath said elongated opening to support superposed paper strips while entering data thereon, of feeding means for the paper comprising a longitudinally disposed endless chain operable in the direction of the printed form on the paper, said chain carrying pins adapted to engage openings located at one side of the paper and to align the paper strips with one another and means adjacent the side of said table opposite said chain for stationarily supporting at one longitudinally disposed edge only carbon sheets disposed between said paper strips.

3. In an autographic register, the combination with a general casing having a top plate with an opening elongated lengthwise of the machine and a slot elongated in the same direction, and having also a table beneath said elongated opening to support superposed sheets of paper having printed forms thereon while entering data thereon, of feeding means for the paper comprising a longitudinally disposed endless chain operable in the direction of the printed form on the paper, said chain carrying pins extending upward through said slot so as to be manually movable and adapted to engage openings located at one side of the paper and aligned with said pins, and means supported adjacent to the opposite edge of the table from the feeding means to support sheets of carbon paper interleaved between strips of the data paper at one longitudinally disposed edge only.

4. In an autographic register, a table for supporting paper sheets to be written upon, means adjacent one side edge of said table for supporting carbon sheets by one longitudinal edge only, a cover for the table having an opening therein over the table for writing purposes and a slot adjacent to the opening and the opposite edge of the table, and means adapted to engage the strips of paper at one edge only and extend through the

slot to be manually engageable for feeding the strips over the table and relative to the carbon sheets.

5. In an autographic register, a casing, a table in the casing, and a longitudinally disposed endless chain mounted to travel between one side of the casing and the edge of the table, the chain carrying projections adapted to engage strips of paper at one edge only to provide for the interleaving therewith of carbon sheets stationarily supported at one longitudinally disposed edge only adjacent the opposite edge of said table and to feed them over the top of the table and relative to the carbon sheets.

6. In an autographic register, the combination with the table, a traveling member located near one edge of the table and adapted to feed superimposed strips of paper along the table, and means supported at the other side of the table to stationarily support at one longitudinally disposed edge only carbon sheets interleaves between the strips of paper.

7. In an autographic register, the combination with a casing, and feeding means for moving the paper through the machine, of a disk mounted near such feeding means and acting when the paper moves over it to lift the paper and prevent it from binding on the feeding means.

8. In an autographic register for paper strips having forms perforated on one side only, means in one side of the register for supporting transversely disposed carbon sheets at one end only and means in the other side only of the register movable longitudinally thereof for engaging the perforations and moving the forms, whereby the forms are supported at one side only and are moved laterally of the carbon sheets and sidewise through the register.

9. In an autographic register for paper strips having forms perforated on one side only, means in one side of the register movable longitudinally thereof for engaging the perforations and moving the forms and means opposite said first-named means for supporting transversely disposed carbon sheets at one longitudinally disposed edge only in a stationary manner whereby the forms are engaged at one side only and moved sidewise through the register and laterally and independently of the carbon sheets.

10. In an autographic register having a longitudinally-disposed writing aperture in its top and means disposed at one side thereof and travelling parallel to the side for engaging one edge of a web comprising superposed strips of paper having forms printed laterally thereon and traversing said forms sidewise through the register, the combination of a carbon pack comprising superposed carbon sheets extending laterally of the register and interleaved with the strips of the web, and means adjacent the free edge of the web for securing one longitudinally disposed end only of the pack to the register whereby the strips may be fed laterally of and independently of the carbon pack.

11. In an autographic register, the combination with a general casing having a top plate with an opening elongated lengthwise of the machine and a slot elongated in the same direction, and having also a table beneath said elongated opening to support paper strips having thereon printed forms extending transversely of the strips while entering data thereon and means at one side of said table for stationarily supporting at one longitudinally disposed edge only, carbon sheets disposed between said paper strips, of feeding means for the paper strips comprising a longitudinally disposed endless chain at the opposite side of said table and operable in the direction of the width of the printed form on the paper, said chain carrying pins adapted to engage openings located at one side of the paper and to align the paper strips with one another, said pins also projecting through the slot during a part of the traverse whereby they may be manually operated to feed the paper.

12. In an autographic register, the combination with a general casing having a top plate with an opening elongated lengthwise of the machine and a slot elongated in the same direction, and having also a table beneath said elongated opening to support the paper while entering data thereon, of feeding means for the paper at one side only of the register comprising a longitudinally disposed endless chain operable in the direction of the printed form on the paper, said chain carrying pins adapted to engage openings located at one side of the paper and aligned with said pins, said pins in their travel projecting upward through the slot so as to be manually engaged thereat, and means supported adjacent the opposite edge of the table from the feeding means to independently support at one longitudinally disposed edge only sheets of carbon paper interleaved between strips of the data paper.

13. In an autographic register, a casing, a table in the casing, a longitudinally disposed endless chain mounted between one side of the casing and the edge of the table and carrying projections adapted to engage one edge only of strips of paper and to feed them over the table, and a carbon pack secured at one longitudinally disposed edge only to the machine between the edge of the table and the side of the casing at the opposite edge thereof whereby in feeding, the free side edges of the strips are disposed adjacent the secured edges of the carbons and the strips move laterally and independently thereof.

14. In an autographic register, the combination with a casing having an aperture and a slot in the top thereof and a table therein disposed below the aperture, said slot being parallel to a longitudinal side of the top and disposed between said side and the aperture; an endless chain longitudinally disposed in the casing and having its upper reach disposed within the zone of the slot and carrying projections adapted to engage one edge of the individual strips of a paper web and project through the slot and be manually engageable to traverse the web longitudinally of the casing and above the table, and a carbon pack having the sheets thereof interleaved with the strips of the web and having one longitudinally disposed edge only secured to the register adjacent that side of the table which is opposite to the chain whereby the paper web may be selectively fed longitudinally of the register casing and laterally of the carbon pack and independently thereof.

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