No. 755,863. PATENTED MAR. 29, 1904.

H. D. FLESHUTZ.

PRINTING PRESS GRIP FINGER.

APPLICATION FILED AUG. 26, 1902.

NO MODEL.

Fig. 1.

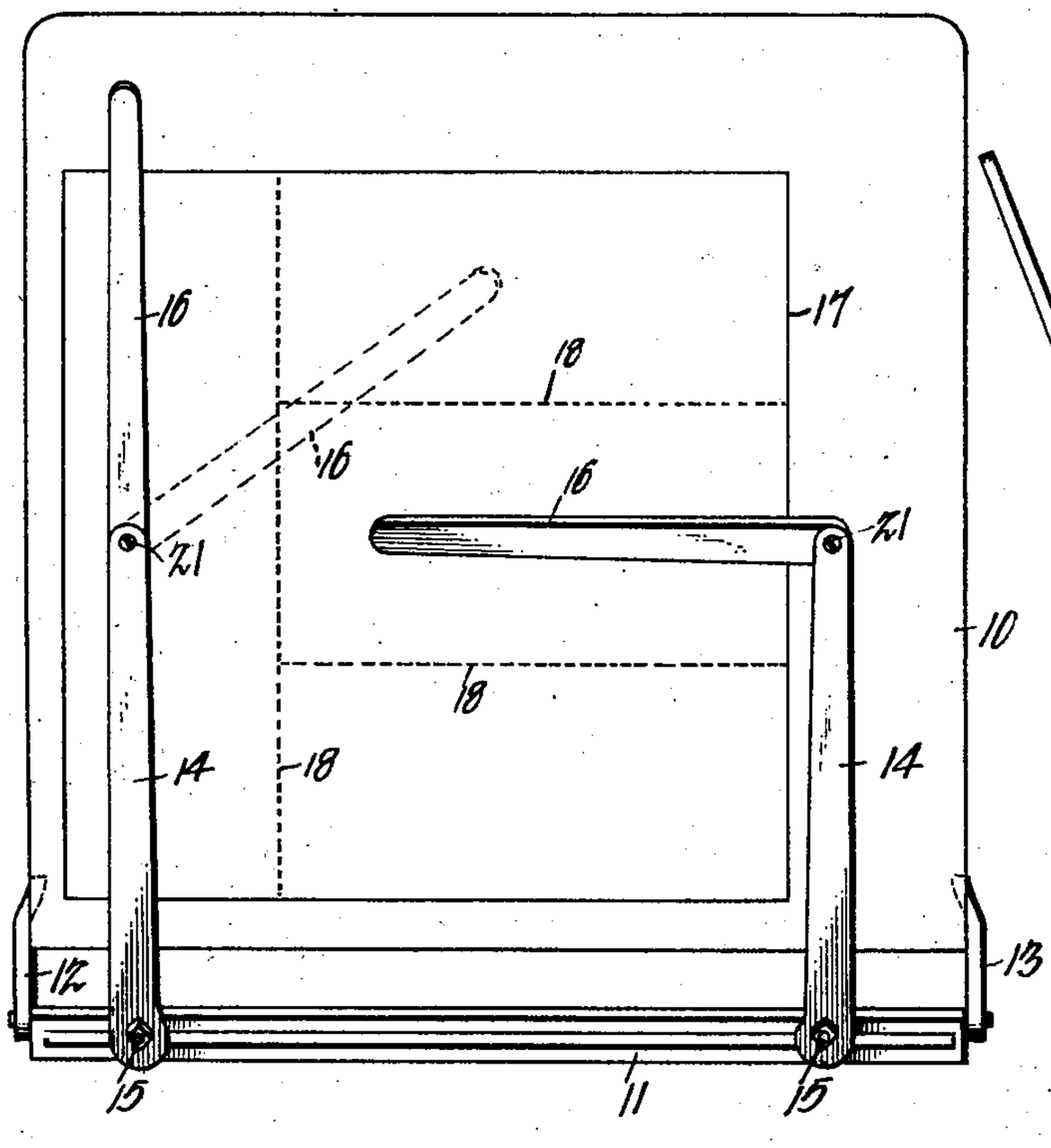


Fig. 2.

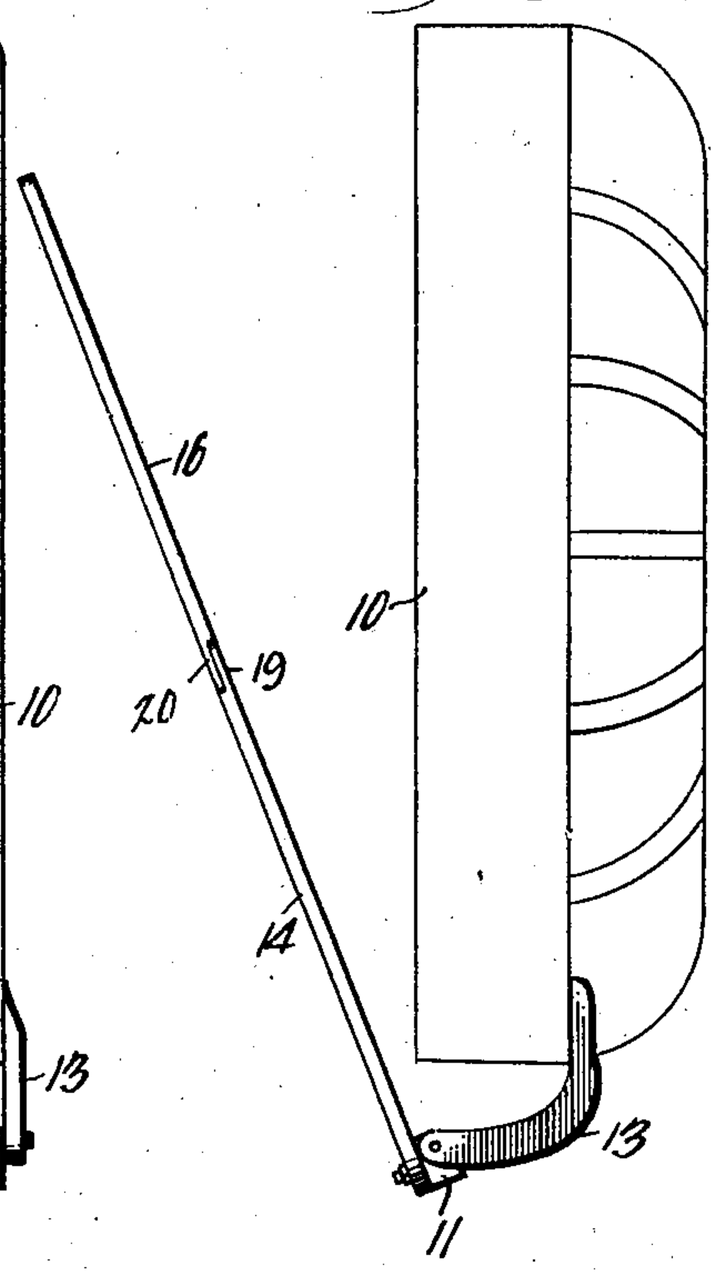


Fig. 3.

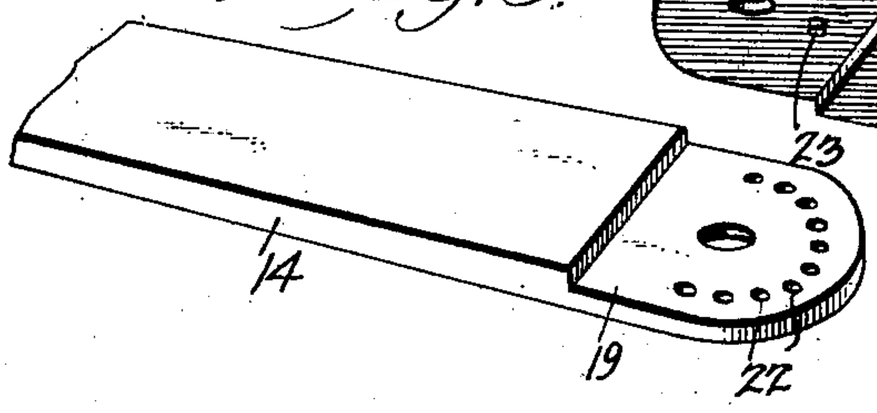


Fig. 4.

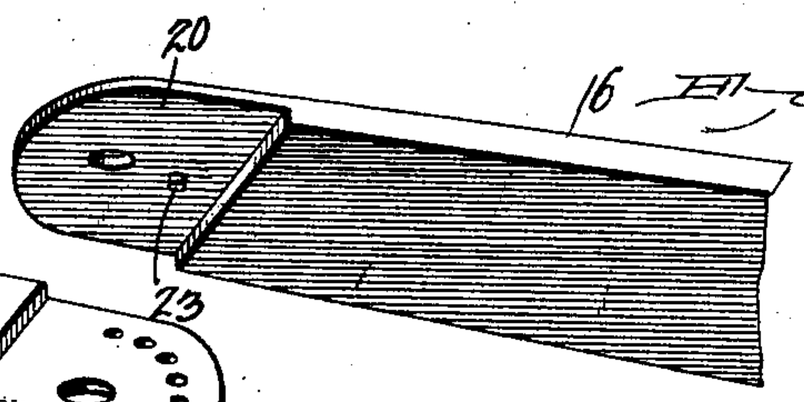


Fig. 5.

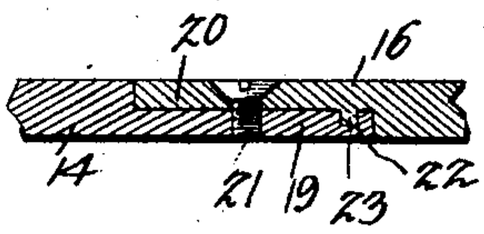
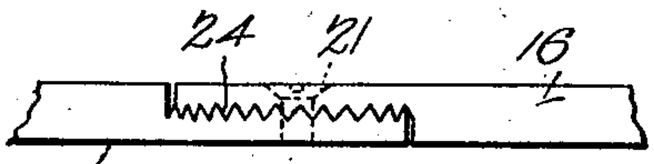


Fig. 6.



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No. 755,863. Patented March 29, 1904.

UNITED STATES PATENT OFFICE.

HERMAN D. FLESHUTZ, OF COUDERSPORT, PENNSYLVANIA.

PRINTING-PRESS GRIP-FINGER.

SPECIFICATION forming part of Letters Patent No. 755,863, dated March 29, 1904.

Application filed August 26, 1902. Serial No. 121,108. (No model.)

To all whom it may concern:

Be it known that I, HERMAN D. FLESHUTZ, a citizen of the United States, residing at Coudersport, in the county of Potter and State of Pennsylvania, have invented a new and useful Printing-Press Grip-Finger, of which the following is a specification.

This invention relates to the grip-fingers employed upon printing-presses for holding the sheet and preventing its returning with the form after the impression is made, and has for its object the production of a simply-constructed easily-adjusted grip-finger which may be set at any desired angle relative to the sheet so that the form may be impressed upon the full width or length of the sheet without interference from the grip-finger; and the invention consists in a grip-finger adjustably connected to the finger-bar and formed in two or more parts, whereby joints are formed therein to enable the finger to be adjusted at any desired angle with relation to the platen.

Other novel features of the invention will appear in the annexed description and be specified in the claims.

In the drawings illustrative of the invention, Figure 1 is a front view of a printing-press platen and its grip-finger bar with the invention applied. Fig. 2 is a side elevation of the same. Fig. 3 is an enlarged detail perspective view of one of the grip-finger members. Fig. 4 is an enlarged detail perspective view of the other of the grip-finger members to illustrate the construction of the joint between the members. Fig. 5 is a longitudinal sectional detail of the joint of the gripper, illustrating its construction more fully; and Fig. 6 is a side elevation of a modified form of joint.

This invention may be applied to any of the various forms of printing-presses; but for the purpose of illustration it is shown applied to a conventional platen, (represented at 10,) with the usual movable grip-finger bar 11 connected thereto by the brackets 12 13 to its lower end. The bar 11 is shown formed with spaced sides, whereby a central longitudinal slot is formed therein for the adjustable reception of the finger-bars, these finger-bars being usually flat metal strips extending between the platen and the "form," and adapted, when the press is operated, to be forcefully compressed against the sheet upon the platen. Generally printed sheets are provided with margins upon the sides, and these grip-fingers are usually adjusted to engage the margins so that they will not be struck by the form when the press is operated; but when forms are to be printed which reach entirely across the sheet or project beyond its edges the ordinary form of grip-finger cannot be employed. This difficulty is met with, for instance, in printing sheets with perforated lines or tearing-lines, such as bank-checks, blank orders, drafts, and similar devices, where the perforated lines are formed by brass rules inserted into the form, either with the other type or in a separate form, and these perforating-rules are generally arranged to print entirely across the sheet and project more or less beyond the edges, and when this occurs the ordinary grip-finger cannot be employed. The present improvement is designed to meet this difficulty and consists in forming the grip-finger with an intermediate joint, so that it can be adjusted and held at any desired angle with reference to the platen, and thus adapted to engage the sheet between the rule-lines.

The improved grip-finger consists in a base portion 14, adjustably connected to the bar 11, as by a clamp-bolt 15, by which means the member 14 may be adjusted longitudinally of the bar 11 and also set at any angle with reference thereto. Movably connected to the outer or free end of the member 14 is an extension 16, conforming in outline to the member 14, so that when placed in longitudinal alinement, as illustrated at the left in full lines in Fig. 1, it forms a grip-finger corresponding to the ordinary construction, but which is capable of being adjusted at any angle in relation to the part 14, as shown. For the purpose of illustrating one means of employing this jointed grip-finger the outline of a sheet to be printed is indicated at 17, with a series of perforated rule-lines indicated at 18, this sheet 17 representing, for instance, one of the leaves of a check-book or similar device having three spaced checks or separable parts of the ordinary kind. When printing a sheet of this character, it will be

noted that the grip-finger at the left is located to engage the sheet near one edge and entirely clear of the vertical rule-line 18, while the other grip-finger is adjusted with its portion 14 entirely clear of the sheet and its adjustable portion 16 engaging the sheet between the rule-lines. By this it will be evident that the form containing the perforating-rules will engage the sheet without touching the grip-fingers, and the grip-fingers will perfectly perform their work without interfering with the form.

The joint between the parts 14 16 is formed by reversely-disposed recesses or reduced portions 19 20, respectively, in the two parts and adapted to be pivotally engaged by a central screw 21, as shown more clearly in Fig. 5. By this means the general surfaces of the two parts 14 16 coincide and no external protuberances are formed, so that the jointed grip-finger may be employed in all the various localities wherein the ordinary grip-finger is employed.

The locking means employed in the recessed or reduced portions 19 20 may be of any desirable construction; but my preferred form is illustrated in Figs. 3, 4, and 5 of the drawings, while Fig. 6 illustrates a modified structure. My preferred form of construction consists in a plurality of spaced apertures 22, located in the inner face of the reduced portion of one of the members and concentrically disposed with reference to the pivot-pin 21 and formed on the inner surface of the recess or reduced portion 19 of the other member, and extending therefrom is preferably secured a pin 23, which is adapted to successively engage the spaced aperture 22. The modified structure shown in Fig. 6 consists in concentrically-arranged reversely-disposed serrations 24 in the contiguous faces of the parts 19 20. It will be obvious that by the employment of either of the arrangements shown if the clamp-pin 21 be loosened the parts 14 16 may be slightly separated and set at any desired relative angle within the range of the recesses 22 or teeth 24 and again locked in place. Thus the relative angle between the parts 16 14 may be adjusted to any desired extent, or by loosening the clamp-bolts 15 the parts 14 may be set at any desired angle upon the bar 11 to adapt the device to the various changes in the printing-sheets 17.

Having thus described the invention, what is claimed is—

1. A grip-finger for presses formed by two members of substantially equal length movably united, and means carried by said members independent of the connecting means for holding said parts at any desired angle in relation to each other.

2. A grip-finger for presses formed by two members of substantially equal length pivotally connected, and means carried by the adjacent faces of the members adapted to interengage with each other for holding said members at any desired angle in relation to each other.

3. A grip-finger for presses formed by a plurality of parts, each of said parts being recessed at one end, means for holding the recessed faces together, and means carried by the adjacent faces of the recessed portions, independent of the connecting means, and adapted to coact with each other, for holding the parts at an angle in relation to each other.

4. A grip-finger for printing-presses comprising a base member and a terminal member of substantially equal length, said base member being adjustably connected by one end to the platen and provided with a transverse recess in its free end, said terminal member being also provided with a reversely-disposed transverse recess in one end engaging the recess in said base member, a pivot centrally uniting said members through said recesses, a plurality of concentrically-disposed spaced cavities in the adjacent faces of said recessed ends, and means for clamping said recessed ends together.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HERMAN D. FLESHUTZ.

Witnesses:
S. H. GILLON,
F. H. MCGINNIS.