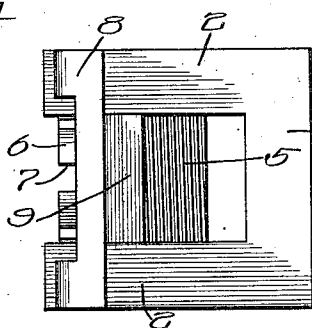
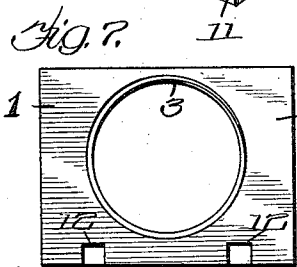
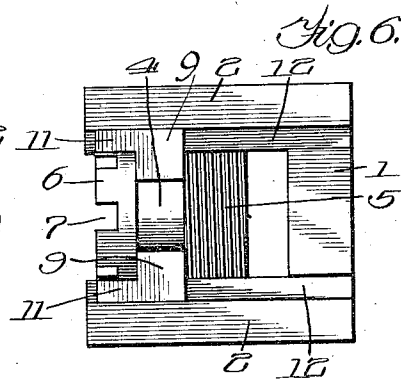
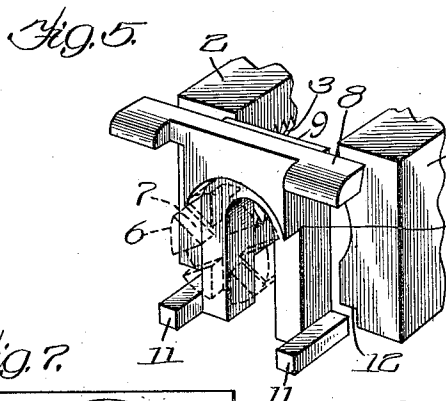
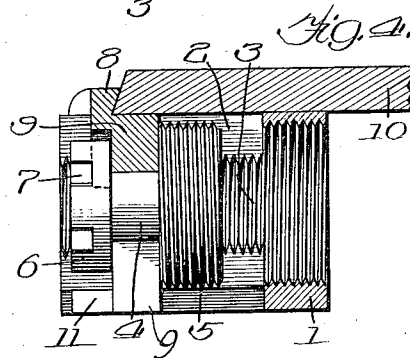
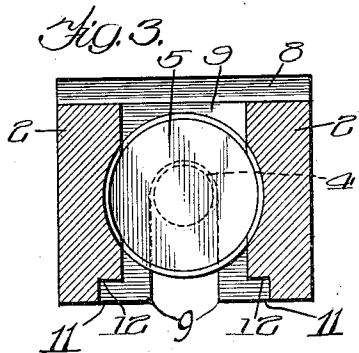
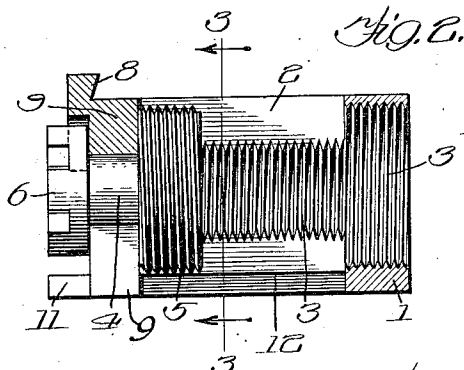
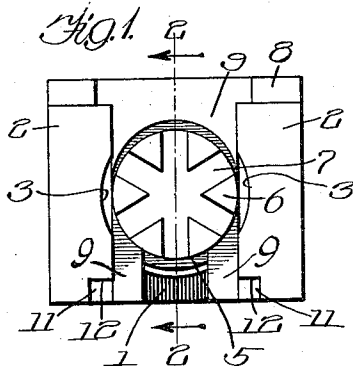


W. S. WARNOCK.
 PRINTER'S CLAMPING DEVICE.
 APPLICATION FILED JULY 20, 1911.

1,060,218.

Patented Apr. 29, 1913.



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UNITED STATES PATENT OFFICE.

WALLACE S. WARNOCK, OF CHICAGO, ILLINOIS.

PRINTER'S CLAMPING DEVICE.

1,060,218.

Specification of Letters Patent.

Patented Apr. 29, 1913.

Application filed July 20, 1911. Serial No. 639,564.

To all whom it may concern:

Be it known that I, WALLACE S. WARNOCK, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Printers' Clamping Devices, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to printers' clamping devices and has several objects and advantages in view, chief among which is the provision of a printer's clamping device that includes a support for the moving elements of the device that is provided with a vertical clearance or opening between the side walls of the support to permit foreign matter to find easy passage through the support whereby the interior of the support is not likely to accumulate matter that would clog the device and prevent the free adjustment of the clamping jaw.

My invention has for another of its objects the provision of a simplified structure whose parts may readily be assembled and in which the parts mutually cooperate by virtue of simple construction to preserve the working relationship thereof.

My invention in its preferred embodiment is illustrated by the accompanying drawing in which—

Figure 1 is one end view of the structure; Fig. 2 is a longitudinal sectional view on line 2 2 of Fig. 1 as the parts appear before their assembly is complete; Fig. 3 is a cross sectional view on line 3 3 of Fig. 2; Fig. 4 is a view similar to Fig. 2, the assembly of the parts being completed and a printing plate which is to be clamped being illustrated in position to be clamped; Fig. 5 is a view in perspective of the structure showing a position which the parts may occupy preparatory to their assembly; Fig. 6 is a bottom view of the structure; Fig. 7 is a view taken from the end opposite to that in which Fig. 1 is taken; and Fig. 8 is a plan view of the structure.

Like parts are indicated by similar characters of reference throughout the different figures.

The clamping device includes a support having a vertically disposed end wall 1 and two vertically disposed side walls 2 2 projecting horizontally from the end wall and

having their ends opposite said end wall free whereby entry may be effected between the side walls at that end of the support opposite the end where said end wall is located, space also intervening between the top margins of the side walls and between the bottom margins of the side walls whereby communication is established between the interior of the support and the exterior of the support at these top and bottom margins to afford a ready avenue for the passage of foreign matter that would otherwise be accumulated within the structure. The support carries threads 3 upon its interior that are horizontally disposed, a horizontally movable adjusting rod 4 having one end 5 in threaded engagement with the threaded portion of the support and having its opposite end 6 constructed for the engagement of an adjusting tool, as for example by the provision of radially extending slots 7 adapted to receive an adjusting bar that may be inserted into the slots and into the space between the side walls 2 of the support, whereby said rod may be turned. An annular groove intervenes between the ends 5 and 6 of the rod. A horizontally traveling clamping jaw 8 is disposed above the support and is laterally projected so as directly to overlie the structure of the support. This traveling jaw has a base 9 that passes between the top and bottom margins of the support, this base having downwardly extending portions that are received between the ends of said rod whereby longitudinal movement of the clamping jaw is effected when the rod is turned in either direction, to enable the clamping jaw to be moved toward or from a plate 10 that is to be clamped in position. The downwardly extending base portions are separated at the bottom of the base to permit the intermediate portions of the adjusting rod to be inserted between said downwardly extending base portions. Side faces of the base are in sliding engagement at the top and bottom of the support with the opposed inner faces of the support whereby the jaw is properly guided in its movements. The bottom portions of the base carry lateral outsetting projections 11 that engage the side walls along their bottom margins to prevent vertical displacement of the clamping jaw, the bottom portions of the sides 2 of the support being desirably recessed at

12, Fig. 3, properly to receive the outsetting projections 11.

In assembling the parts, they are placed in the relative positions indicated in Figs. 2 and 5 in which the base of the jaw faces the free ends of the support sides 2 and in which the adjusting rod is screwed sufficiently within the support to have proper threaded engagement therewith, the annular recesses between the ends of the rod being outside of the support to permit the base to be dropped between the ends of the rod, whereafter the rod may be turned to bring the base into position between the side walls of the support.

It will be observed that the plate 10 not only rests upon the end wall 1 of the block where the threads 3 are circularly continuous, but also rests upon the tops of the side walls 2 that project forwardly from the end wall 1, the tops of the side walls 2 being located above the rod 4. That is the clamping jaw 8 where laterally projected engages the side walls 2 above the rod 4, this place of engagement being co-incident with the lower surface of the plate 10. It is not so important to have the plate 10 engage the top of the end wall 1 as it is to have this plate engage the tops of the side walls 2 and I therefore do not wish to be limited, in all embodiments of the invention, to the supporting relation of the intermediate portion of the wall 1 with the supported plate 10.

Having thus described my invention I claim as new and desire to secure by Letters Patent the following:—

1. A printer's clamping device including a support having one vertically disposed end wall and two vertically disposed side walls projecting horizontally from the end wall and having their ends opposite said end wall free whereby entry of a clamping jaw base may be effected between the side walls at that end of the support opposite the end where said end wall is located, space also intervening between the top margins of the side walls and between the bottom margins of the side walls whereby communication is established between the interior of the support and the exterior of the support at these top and bottom margins of the side walls, the top margins of the side walls of said support being elevated to the level of the printing element to be supported thereby, to engage said printing element, said support carrying threads upon its interior that are horizontally disposed; a horizontally movable adjusting rod having one end in threaded engagement with the threaded portion of the support and having its opposite end constructed for the engagement of an adjusting tool whereby said rod may be turned, an annular groove intervening between these ends of the rod; and a horizontally

traveling clamping jaw disposed above the support and laterally projected so as directly to overlie and engage the top margins of the support, this traveling jaw having a base that passes between the top and bottom margins of the support, this base having downwardly extending portions that are received in the annular groove between the ends of said rod whereby longitudinal movement of the clamping jaw is effected when the rod is turned in either direction and which downwardly extending base portions are separated at the bottom of the base to permit the intermediate portion of the rod to be inserted between said downwardly extending base portions, side faces of the base being in sliding engagement at the top and bottom of the support with the opposed inner faces of the support afforded by the side walls of the support, the bottom of the base being laterally projected to engage the bottom of the support to prevent vertical displacement of the clamping jaw.

2. A printer's clamping device including a support having one vertically disposed end wall and two vertically disposed side walls projecting horizontally from the end wall and having their ends opposite said end wall free whereby entry of a clamping jaw base may be effected between the side walls at that end of the support opposite the end where said end wall is located, space also intervening between the top margins of the side walls and between the bottom margins of the side walls whereby communication is established between the interior of the support and the exterior of the support at these top and bottom margins of the side walls, the top margins of the side walls of said support being elevated to the level of the printing element to be supported thereby, to engage said printing element, said support carrying threads upon its interior that are horizontally disposed; a horizontally movable adjusting rod having one end in threaded engagement with the threaded portion of the support, and having its opposite end constructed for the engagement of an adjusting tool whereby said rod may be turned, an annular groove intervening between these ends of the rod; and a horizontally traveling clamping jaw disposed above the support and laterally projected so as directly to overlie and engage the top margins of the support, this traveling jaw having a base that passes between the top and bottom margins of the support, this base having downwardly extending portions that are received in the annular groove between the ends of said rod whereby longitudinal movement of the clamping jaw is effected when the rod is turned in either direction and which downwardly extending base portions are separated

rated at the bottom of the base to permit the intermediate portions of the rod to be inserted between said downwardly extending base portions, side faces of the base being in sliding engagement at the top and bottom of the support with the opposed inner faces of the support afforded by the side walls of the support, the base having a formation for engagement with the support to prevent vertical displacement of the jaw.

3. A printer's clamping device including a support having one vertically disposed end wall and two vertically disposed side walls projecting horizontally from the end wall and having their ends opposite said end wall free whereby entry of a clamping jaw base may be effected between the side walls at that end of the support opposite the end where said end wall is located, space also intervening between the top margins of the side walls and between the bottom margins of the side walls whereby communication is established between the interior of the support and the exterior of the support at these top and bottom margins of the side walls, the top margins of the side walls of said support being elevated to the level of the printing element to be supported thereby, to engage said printing element, said support carrying threads upon its interior that are horizontally disposed; a horizontally movable adjusting rod having one end in threaded engagement with the threaded portion of the support and having its opposite end constructed for the engagement of an adjusting tool whereby said rod may be turned, an annular groove intervening between these ends of the rod; and a horizontally traveling clamping jaw disposed above the support and laterally projected so as directly to overlie and engage the top margins of the support, this traveling jaw having a base that passes between the top and bottom margins of the support, this base having downwardly extending portions that are received in the annular groove between the ends of said rod whereby longitudinal movement of the clamping jaw is effected when the rod is turned in either direction and which downwardly extending base portions are separated at the bottom of the base to permit the intermediate portions of the rod to be inserted between said downwardly extending base portions, side faces of the base being in sliding engagement at the top and bottom of the support with the opposed inner faces of the support afforded by the side walls of the support.

4. A printer's clamping device including a support having one vertically disposed end wall and two vertically disposed side walls projecting horizontally from the end wall and having their ends opposite said end wall free whereby entry of a clamping

jaw base may be effected between the side walls at that end of the support opposite the end where said end wall is located, space also intervening between the top margins of the side walls and between the bottom margins of the side walls whereby communication is established between the interior of the support and the exterior of the support at these top and bottom margins of the side walls, the top margins of the side walls of said support being elevated to the level of the printing element to be supported thereby, to engage said printing element, said support carrying threads upon its interior that are horizontally disposed; a horizontally movable adjusting rod having one end in threaded engagement with the threaded portion of the support and having its opposite end constructed for the engagement of an adjusting tool whereby said rod may be turned, an annular groove intervening between these ends of the rod; and a horizontally traveling clamping jaw disposed above the support and laterally projected so as directly to overlie and engage the top margins of the support, this traveling jaw having a base that passes between the top and bottom margins of the support, this base having downwardly extending portions that are received in the annular groove between the ends of said rod whereby longitudinal movement of the clamping jaw is effected when the rod is turned in either direction and which downwardly extending base portions are separated at the bottom of the base to permit the intermediate portion of the rod to be inserted between said downwardly extending base portions, the bottom of the base being laterally projected to engage the bottom of the support to prevent vertical displacement of the clamping jaw.

5. A printer's clamping device including a support having one vertically disposed end wall and two vertically disposed side walls projecting horizontally from the end wall and having their ends opposite said end wall free whereby entry of a clamping jaw base may be effected between the side walls at that end of the support opposite the end where said end wall is located, said support carrying threads upon its interior that are horizontally disposed; a horizontally movable adjusting rod having one end in threaded engagement with the threaded portion of the support and having its opposite end constructed for the engagement of an adjusting tool whereby said rod may be turned, an annular groove intervening between these ends of the rod; and a horizontally traveling clamping jaw disposed above the support and having a base that passes between and is in sliding engagement with the sides of the support, which are elevated to the level of the printing element to be sup-

ported so as directly to support said printing element, this base having downwardly extending portions that are received in the annular groove between the ends of said rod
5 whereby longitudinal movement of the clamping jaw is effected when the rod is turned in either direction and which downwardly extending base portions are separated at the bottom of the base to permit
10 the intermediate portion of the rod to be

inserted between said downwardly extending base portions.

In witness whereof, I hereunto subscribe my name.

WALLACE S. WARNOCK.

Witnesses:

E. L. WHITE,
G. L. CRAGG.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
