CLAMPING MEANS FOR STENCILING DEVICES

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2 Sheets—Sheet 1
This invention relates to certain novel improvements in clamping means for stenciling devices and has for its principal object the provision of an improved construction of this character which will be highly efficient in use and economical in manufacture.

Among the objects of our invention is to provide devices of the above named character which will be particularly adapted for usage in connection with stenciling presses in which names or similar wording is imprinted on articles.

A further object of the invention is to provide a device of the above named character which will be particularly adapted for holding fountain pens, pencils, and the like, in position below a stenciling die in order that wording of the above named character may be imprinted thereon.

A further object of the invention is to arrange a device of the foregoing character in such a manner that the clamping device for holding the pens and the like may be shifted relative to the die and to arrange the mechanisms such that the clamping structure may be removed and replaced in an identical position to that occupied before removal.

A still further object of the invention is to arrange a device of the above named character in such a manner that the clamping structure will embody movable parts which will be arranged such that they may be simultaneously moved into engaging or dis-engaging position.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings, showing the preferred form of construction and in which:

Fig. 1 is a front elevational view of a stenciling press on which a preferred embodiment of our invention is illustrated;

Fig. 2 is a side view of the device illustrated in Fig. 1;

Fig. 3 is a view taken substantially on the line 3—3 on Fig. 2;

Fig. 4 is a sectional view taken substantially on the line 4—4 on Fig. 3;

Fig. 5 is a view taken substantially on the line 5—5 on Fig. 3;

Fig. 6 is a detail view substantially similar to Fig. 4 depicting a modified form of construction; and

Fig. 7 is a perspective detail view depicting one of the auxiliary clamping jaws employed in the embodiment of the invention illustrated in Fig. 6.

In the drawings wherein a preferred embodiment of our invention is illustrated, 10 indicates a stenciling press which may be of any approved character which includes a ram 11 that is adapted to be operated by the handle 12, connection between the handle 12 and the ram 11 in the present instance being afforded by a rack and pinion construction, generically indicated by 13. At the lower end 70 of the ram 11 a stenciling die 14 of any approved character is adapted to be mounted in any approved manner.

The press 10 includes a table 15 which is adapted to extend below the ram 11. Secured to the sides 16 and 17. The plate 18 is fixedly secured to the sides of the table 15 by any approved means such as the screws 19. The plate 16 has spaced apart openings 20 provided therein which are adapted to receive the pins 21 which are mounted in the table 15 in order that the plate 16 shall be slidable relative to the side of the table 15. A thumb screw 21 is provided which is adapted to clamp the plate 16 to the side of said table 15. The plates 16 and 17 extend above the top side of the table 15 in order to provide a guide-way for the clamping structure now to be described.

The clamping structure includes a base 22 which has a transversely extending groove 23 formed at substantially the mid-point in the upper side thereof. At the ends of the groove 23, upstanding ears 24 and 25 are provided which have aligned openings 26 and 27 provided therein. Mounted so as to be slidable on the upper side of the base 22 are clamping jaws 28 and 29 which have downwardly extending lugs 30 and 31 provided thereon that are adapted to be disposed in the groove 23.
Disposed to extend through the openings 26 and 27 is a rod-like screw 32 which has screw threads provided on the periphery thereof which have in an inwardly extending lead and which extend from opposite ends of the screw 32. These inwardly extending screw threads join at substantially the mid-point in the extent of the screw 32. On the portion of the screw 32 extending beyond the lug 25, a nut 33 is provided and on the opposite end of the screw 32 is a finger nut 34. The lugs 30 and 31 on the clamping jaws 28 and 29 have openings therein which are adapted to be screw threaded so as to correspond to the screw threads on the member 32. It is therefore apparent that the screw threads in these lugs are directed in opposite directions and since they cooperate with oppositely extending screw threads on the screw 32, it is apparent that when said screw 32 is rotated by manipulation of the nut 34 the clamping jaws 28 and 29 will be moved toward or away from each other dependent upon the direction of rotation of the screw 32.

It is apparent from the foregoing that the device which in the present instance is adapted to be a fountain pen or the like, will always be clamped at substantially the same point relative to the base 22 between the jaws 28 and 29. It is also apparent that it will be desirable to vary the position relative to the die carried by the ram 11. In order to accomplish this, the following structure is provided. Disposed rearwardly of the inner end of the plates 17 and 16 on the upper side of the table 15 is a lug 35 which has a screw threaded opening 36 formed therein in which the bolt 37 is mounted. The bolt 37 includes an enlarged head 38. Preferably though not necessarily, the lug 35 is aligned with the recess 23 in the block 22. If desirable, a lock nut may be provided on the bolt 37 so as to insure proper positioning thereof. By varying the position of the bolt 37 it is apparent that the point at which the nut 33 engages the head 38 will be varied and thus the position of a member clamped between the jaws 28 and 29 will be varied.

In use, the plate 16 is loosened so as to permit the base 22 to be inserted therebetween and after the base has been inserted therebetween the bolt 37 is positioned so as to bring the member clamped between the jaws 28 and 29 into position below the die carried by the ram 11. When the parts are in this position the thumb screw 21 is tightened so as to cause the plate 16 to securely engage the base 22 and lock said base in position. After an operation has been performed it is frequently desirable to ascertain whether or not a proper impression has been made and in order to determine this, the nut 21 is loosened which will permit the removal of the base 22. If it is found necessary that a second impression be made, it is apparent that the base 22 can be reinserted into an identical position with that occupied during the previous operation by again causing the nut 33 to engage the head 38 and then tightening the thumb screw 21.

It is apparent that devices of the various sizes will need be clamped between the jaws 28 and 29 and in order to facilitate this clamping, we have provided auxiliary jaws which may be positioned between the jaws 28 and 29 and thus the necessity for removing these jaws is obviated. In Fig. 6 we have depicted two auxiliary jaws 39 and 40 which are adapted to be disposed between the jaws 28 and 29. It is apparent that the jaws 28 and 29 and the jaws 39 and 40 include recessed portions which are substantially hemispherical in shape so as to facilitate the clamping of a round object therebetween although it is to be understood that any desired configuration might be provided without departing from the purview of our invention. The jaws 38 and 39 are preferably provided with recessed portions such as that indicated by 41 in Fig. 7 and these recessed portions are adapted to rest upon the member 32 so as to insure proper positioning of the jaws 38 and 40.

As is understood, devices of the character on which this mechanism is adapted to operate such as fountain pens, automatic pencils, and the like, are frequently provided with so-called clips, to facilitate the carrying thereof. It is apparent that the space between the jaws 28 and 29 will be sufficient to permit the inserting of such a clip between these jaws but when auxiliary jaws such as 39 and 40 are provided, the space is frequently too small. Therefore, we have provided a slot 42 such as that shown in the clamping jaw 40 which is adapted to receive these clips during the operation and it is therefore apparent that these clips will not be injured.

From the foregoing description, it is apparent that we have provided a clamping structure which will facilitate the positioning of devices such as fountain pens and the like in a stenciling press and it is also apparent that this device is arranged such that the clamping structure holding devices of the above named character may be removed and re-inserted without changing the position of the clamping structure relative to the die employed.

While we have illustrated and described the preferred form of construction for carrying our invention into effect, this is capable of variation and modification, without departing from the spirit of the invention. We, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail ourselves of such variations and modifications as come within the scope of the appended claims.

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

1. In a device of the character stated, a table, plates secured to the sides of said table, a block having upwardly extending end portions, clamping jaws arranged on said block between said end portions, a screw embodying a double lead extending in opposite directions having one of said clamping jaws mounted on each portion of said lead, means for rotatably supporting said screw in said upstanding end portions on said block whereby when said screw is rotated said jaws will be moved toward and away from each other, means for positioning said block between said side plates in predetermined positions, said last named means including means for permitting removal of said block from a predetermined position and including means for reinserting said block into said first named position, and means for securing said block in said position.

2. In a device of the character stated, a table, plates secured to the sides of said table, a block having upwardly extending end portions, clamping jaws arranged on said block between said end portions, a screw embodying a double lead extending in opposite directions having one of said clamping jaws mounted on each portion of said lead, means for rotatably supporting said screw in said upstanding end portions on said block whereby when said screw is rotated said jaws will be moved toward and away from each other, and means for positioning said block between said side plates in predetermined positions, said last named means including an upstanding lug, an adjustable screw mounted in said screw disposed to engage the inner end of said first named screw, and a screw member in one of said side plates for holding said block in a predetermined position.

In testimony whereof we affix our signatures.

OLAF HALVORSEN.

SAMUEL F. KIESLING.