G. T. GOSORN.

Side-Stick and Quoin.

No. 218,518. Patented Aug. 12, 1879.

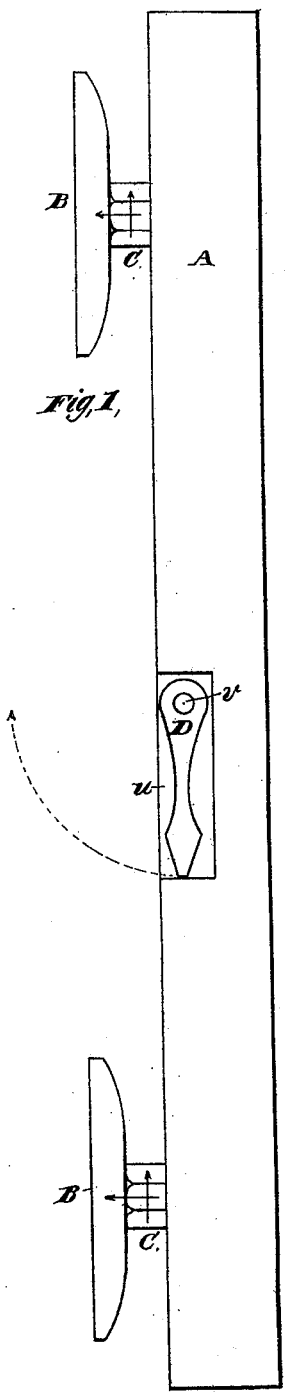
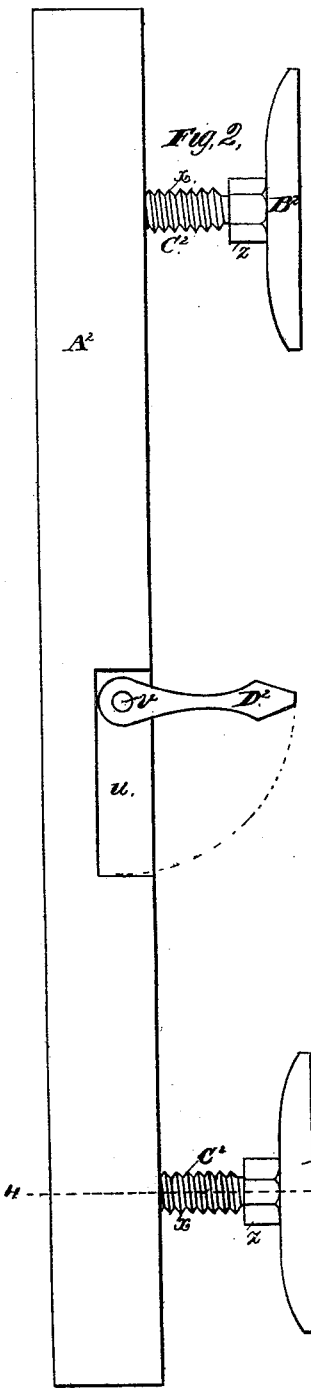


Fig. 1.



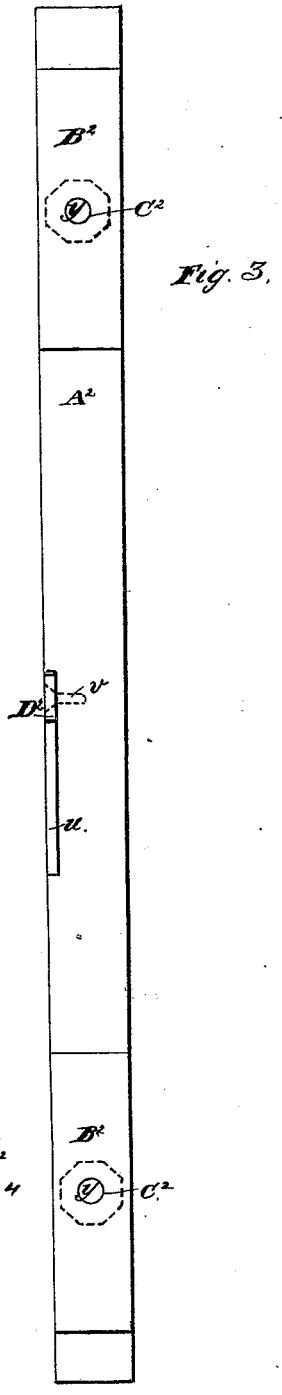


Fig. 3.

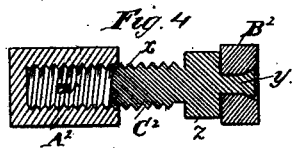


Fig. 4

Attest

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GEORGE T. GOSORN, OF KEYSER, WEST VIRGINIA.

IMPROVEMENT IN SIDE-STICK AND QUOINS.

Specification forming part of Letters Patent No. **218,518**, dated August 12, 1879; application filed December 31, 1878.

To all whom it may concern:

Be it known that I, GEORGE T. GOSORN, of Keyser, in the county of Mineral and State of West Virginia, have invented a certain new and useful Improvement in Side-Stick and Quoins; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This improvement relates to printers' side-sticks and quoins of that class in which screws are employed in lieu of sliding wedges for locking up the matter in the chase.

My invention consists, first, in the combination of a wide metallic bar having transverse screw-sockets, two or more quoin-pieces of the same height as the bar, forming non-rotary parallel bearings, and a complement of rotary screws swiveled in the said quoin-pieces, and adapted to turn toward the head of the form in locking up, whereby I form a simple and efficient side-stick and quoins adapted to rest solidly and level upon the imposing-stone and against the chase, without danger of accidental displacement.

My invention consists, secondly, in a combined indicator and limit-gage, to facilitate the selection of the proper side-stick and quoins, and to prevent the accidental separation of the parts, as hereinafter set forth.

Figure 1 of the accompanying drawings is a face view of a combined side-stick and quoins constructed according to this invention for the left-hand side of a small chase. Fig. 2 is a face view of the counterpart of the same for the right-hand side of the chase. Fig. 3 is an edge view of said right-hand side-stick and quoins; and Fig. 4 is a cross-section on the line 4 4, Fig. 2.

Like letters of reference indicate corresponding parts in the several figures.

My combined side-stick and quoins consists, essentially, of a uniform rectangular bar, A, of proper length for a given size of chase or form, two or more quoin-pieces, B, presenting extended flat faces to bear solidly against the chase, and two or more rotary screws, C, uniting said bar and quoin-pieces. The screws C have angular heads *z* to receive a wrench, and these are provided with axial rivets *y*, by which said screws are swiveled to the quoin-pieces B, the latter having countersunk drill-holes to receive said rivets. Said screws project from the outer edge of the bar A, and the latter is made of sufficient width to accommodate the threaded portion *x* of screws of the required length in its transverse sockets *w*, Fig. 4.

In a left-hand side-stick and quoins, Fig. 1, right-hand screws are employed, and in a right-hand side-stick and quoins, Fig. 2, left-hand screws are employed, so that all the screws shall turn toward the head of the form in locking up. This greatly facilitates the use of the new device, as in the use of ordinary wedging-quoins, and in all other operations, printers are accustomed to make their motions toward the head of the form.

The proper side-stick and quoins can be readily selected by the aid of an indicator-arm, D, which is attached to the top of the bar A at its outer edge by a pivotal rivet, *v*, at one end of the arm. This at once distinguishes the top of the side-stick and quoins, and by the location of its pivot shows the direction in which the screws turn in locking up, the indicator-arm turning in the same general direction as the screws of its set, as indicated in Fig. 1.

Said indicator-arm serves also as a limit-gage, to show the extent to which the screws will work, as indicated in Fig. 2, and thus facilitates selecting slugs, reglets, or the like to supplement the side-stick and quoins, and also to obviate the employment of other devices for preventing the accidental separation of the parts.

To provide for using either of the side-sticks and quoins upside down in an emergency, the arm D is arranged within a depression, *u*, so as to be flush with the top of the bar A, its pivot *v* being headed within a countersunk drill-hole in the arm, as shown in Fig. 3.

Besides the distinctive advantages above specified, it will be seen that my combined side-stick and quoins will apply the requisite power in locking up and unlocking a form without danger of disturbing the matter; and owing to the union of all the parts, no time

will be lost in its use, as in selecting appropriate quoins.

The wide metallic bar possesses the requisite rigidity for perfect trueness, and, being utilized for the screw-sockets, it obviates the employment of wide quoin-pieces.

When the parts are extended in locking up, the quoin-pieces operate to keep the bar level, and at all times they form non-rotary parallel bearings, which lessen the labor of locking up, prevent straining the screws, and preclude the displacement which might otherwise result from the motion of the screws.

The reference-letters A B C D above used are those of Fig. 1, which shows a left-hand side-stick and quoins, as aforesaid. A^2 B^2 C^2 D^2 represent the corresponding parts of a right-hand side-stick and quoins.

The parts may all be of iron or brass; but preferably the indicator-arm will be made of a distinguishing color.

I know of the screw-quoins shown in Patents No. 158,001 and No. 167,780, and of the combined side-stick and quoins shown in Patent No. 173,992, and hereby disclaim the same.

The following is what I claim as new and of my own invention, and desire to secure by Letters Patent, namely:

1. The combination, in a side-stick and quoins, of a wide metallic bar containing transverse screw-sockets, two or more quoin-pieces of the same height as the bar, forming non-rotary parallel bearings, and rotary screws swiveled in said quoin-pieces, and adapted to turn toward the head of the form in locking up, as herein shown and described, for the purposes set forth.

2. An indicator and limit-gage, constructed and operating substantially as herein shown and described, in combination with a side-stick and quoins having rotary screws which turn toward the head of the form in locking up, for the purposes specified.

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Witnesses:
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