No. 616,782.

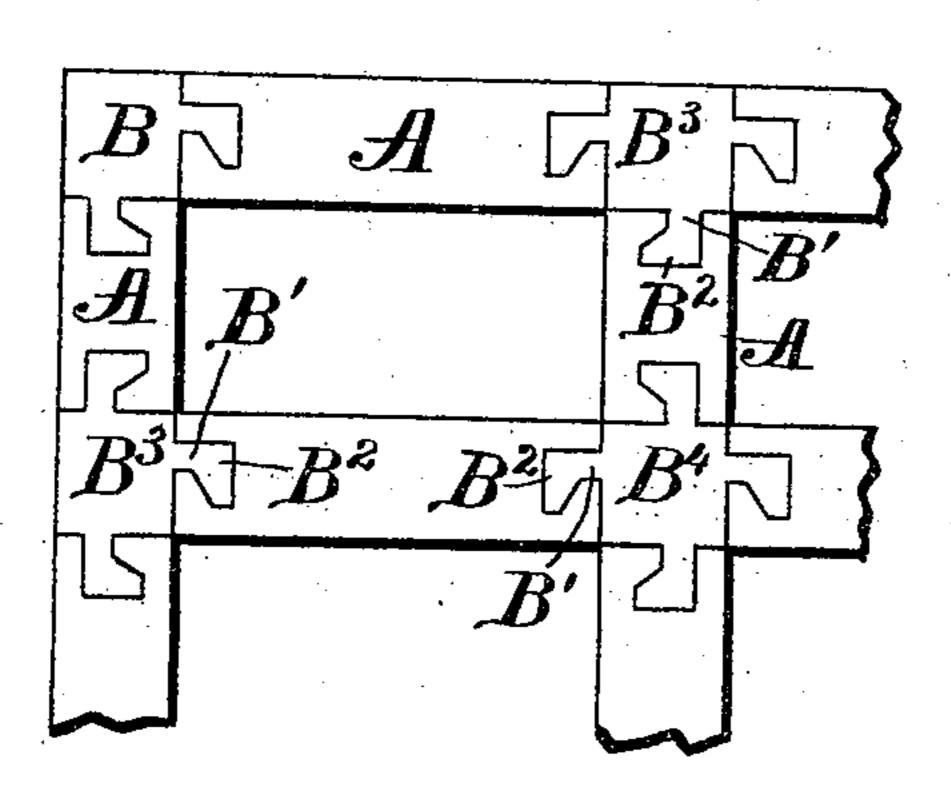
Patented Dec. 27, 1898.

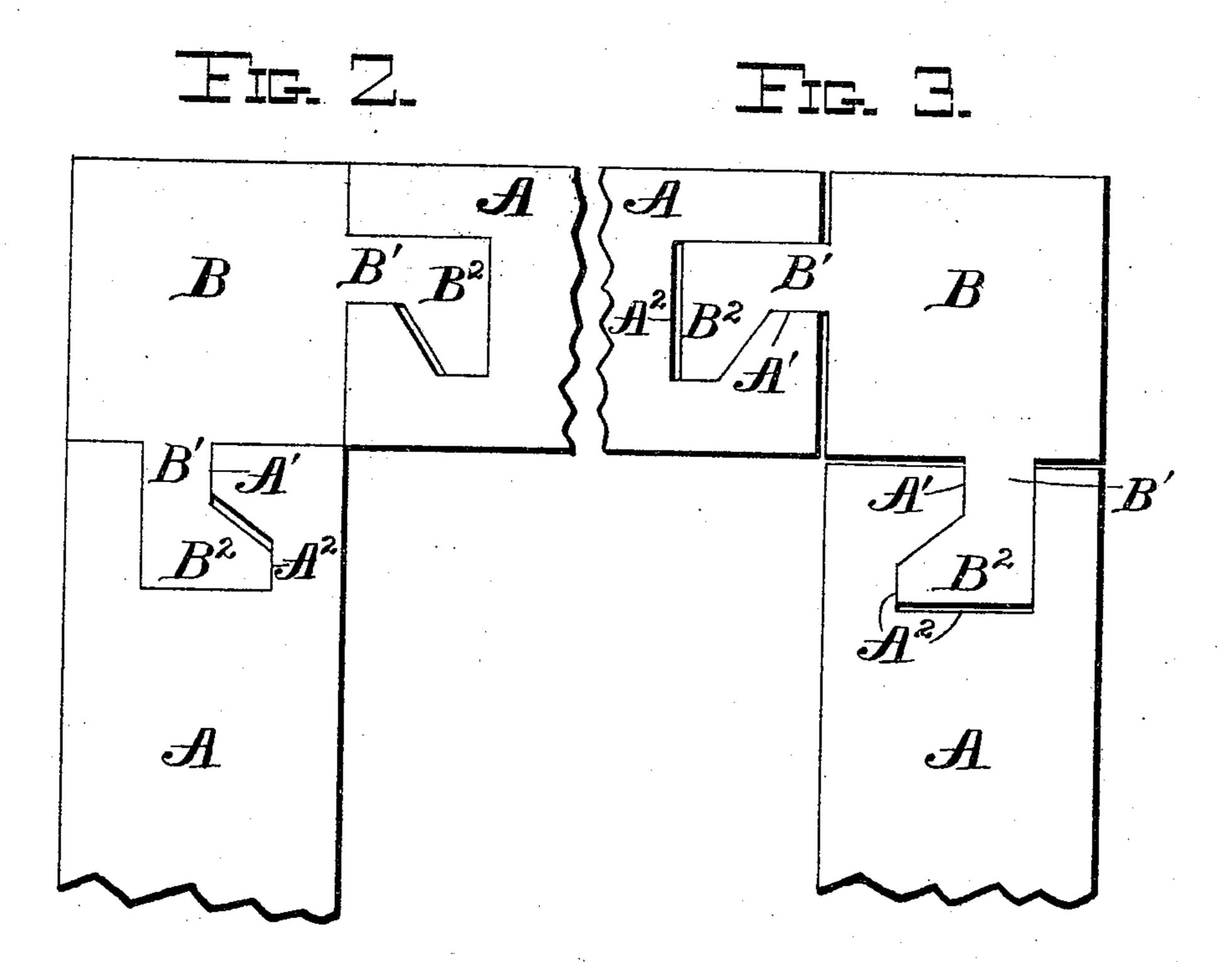
## H. GOLDZIER. PRINTER'S STICK FRAME.

(No Model.)

(Application filed Mar. 12, 1898.)

<u>Fig. 1</u>





Witnesses D B

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Attorney:

## United States Patent Office.

HANS GOLDZIER, OF VIENNA, AUSTRIA-HUNGARY.

## PRINTER'S STICK-FRAME.

SPECIFICATION forming part of Letters Patent No. 616,782, dated December 27, 1898.

Application filed March 12, 1898. Serial No. 673,625. (No model.)

To all whom it may concern:

Beitknown that I, HANS GOLDZIER, printer, a subject of the Emperor of Austria-Hungary, residing at 11 Singerstrasse, in the city of Vienna and Empire of Austria-Hungary, have invented certain new and useful Improvements in Printers' Stick-Frames; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to printers' stick-frames of that class in which the sticks are provided with dovetailed grooves at their ends and adapted to be engaged by and to interlock with dovetail feathers at two or more sides of separate connecting-pieces. A stick-frame firmly holding together the composition is built up from such sticks by combining sticks of suitable length and connecting them by means of the said connecting-pieces by causing the dovetail feathers of the latter to engage the dovetail grooves at the ends of the sticks. Thus the binding together of the composition by means of a cord, as heretofore practiced, is dispensed with.

My invention has for its object to so construct the sticks and connecting-pieces that corrections may be made in the composition while held together by the stick-frame.

In the accompanying drawings, Figure 1 is a plan of a stick-frame according to my invention. Fig. 2 is a plan of one outer corner thereof, on a larger scale, in the position ready for printing. Fig. 3 is a similar view of such outer corner in the position for making corrections in the composition.

A are the sticks. B B³ B⁴ are the connecting-pieces. The sticks are provided at their ends with dovetail grooves, each composed of a parallel-sided neck portion A′ and of an enlarged bottom portion A². The connecting-pieces B for the outer corners of the frame are provided at two contiguous sides with dovetailed feathers, each composed of a parallel-sided neck portion B′ and of an enlarged head portion B². The width of the neck and bottom portions of the grooves is equal to the

width of the neck and head portions, respectively, of the feathers of the connecting- 50 pieces, respectively, but the length or depth of the neck portion of the grooves is slightly smaller—say by one point—than the length of the neck portion B' of the feathers of the connecting-pieces B. The bottom portion  $A^2$  55 of the groove is of sufficient depth to permit the necessary play of the head portion B<sup>2</sup> of the feather, as shown in Figs. 1 and 2. Now when the composition, together with the stickframe, is clamped in the printing-press the 60 feathers are entirely home in their grooves, so that the ends of the sticks are directly in contact with the faces of the connectingpieces, as shown in Fig. 2; but when the composition is not so clamped the natural 65 tendency of the same to expand is not resisted by the clamping devices and forces the sticks apart, so that the ends of the sticks are no more in direct contact with the sides of the connecting-pieces, as shown in Fig. 3, 70 whereas the head portions of the feathers are wedged against the inclined sides of the grooves, whereby the frame is prevented from falling to pieces. In this position corrections may be readily made, while at the same 75 time the composition, together with the stickframe, may be lifted and handled without the slightest danger of falling to pieces, it being found in practice that the pressure exerted by the composition against the sides of the 80 stick-frame is elastic and amply sufficient to prevent any undue looseness. In most cases it will be sufficient to arrange only the outer corner connecting-pieces B in the manner above explained; but the intermediate cor- 85 ner connecting-pieces B<sup>3</sup> B<sup>4</sup>, Fig. 1, may be similarly constructed, if desired.

I claim-

In a printer's stick-frame the combination of sticks having dovetailed grooves at their 90 ends each of such grooves comprising a parallel-sided neck portion and an enlarged bottom portion and of connecting-pieces having dovetailed feathers at two or more sides each of such feathers comprising a parallel-sided 95 neck portion and an enlarged head portion;

the widths of the neck portions and of the head portions of the feathers fitting exactly the widths of the neck portions and bottom portions of the said grooves respectively while the length or depth of some or all of the neck portions of the feathers is slightly greater than that of the neck portions of the corresponding grooves and the depth of the bottom portions of such grooves is greater

than the depth of the head portions of the refeathers.

In testimony whereof I affix my signature in presence of two witnesses.

HANS GOLDZIER.

Witnesses:

HENRY C. CARPENTER, CHAS. E. CARPENTER.