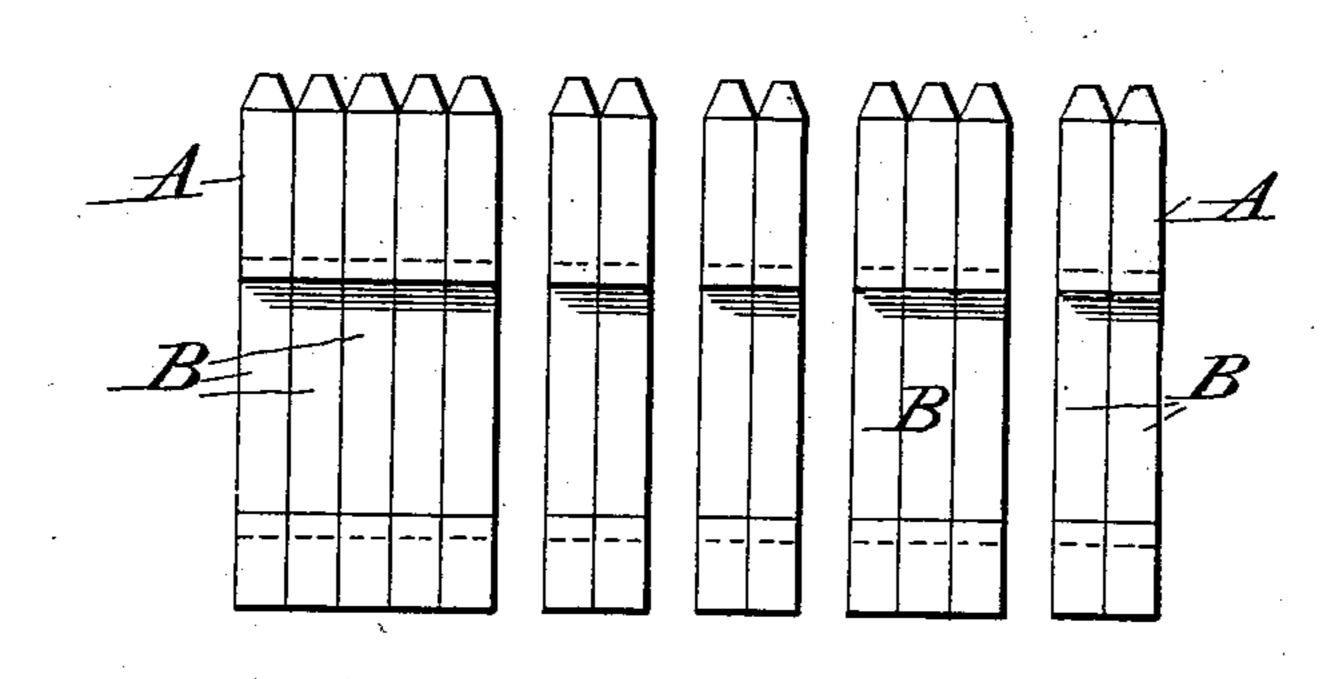
L. A. BROTT.

COMPOSITE TYPE BAR.

(Application filed July 1, 1897.)

(No Model.)

Fig.1.



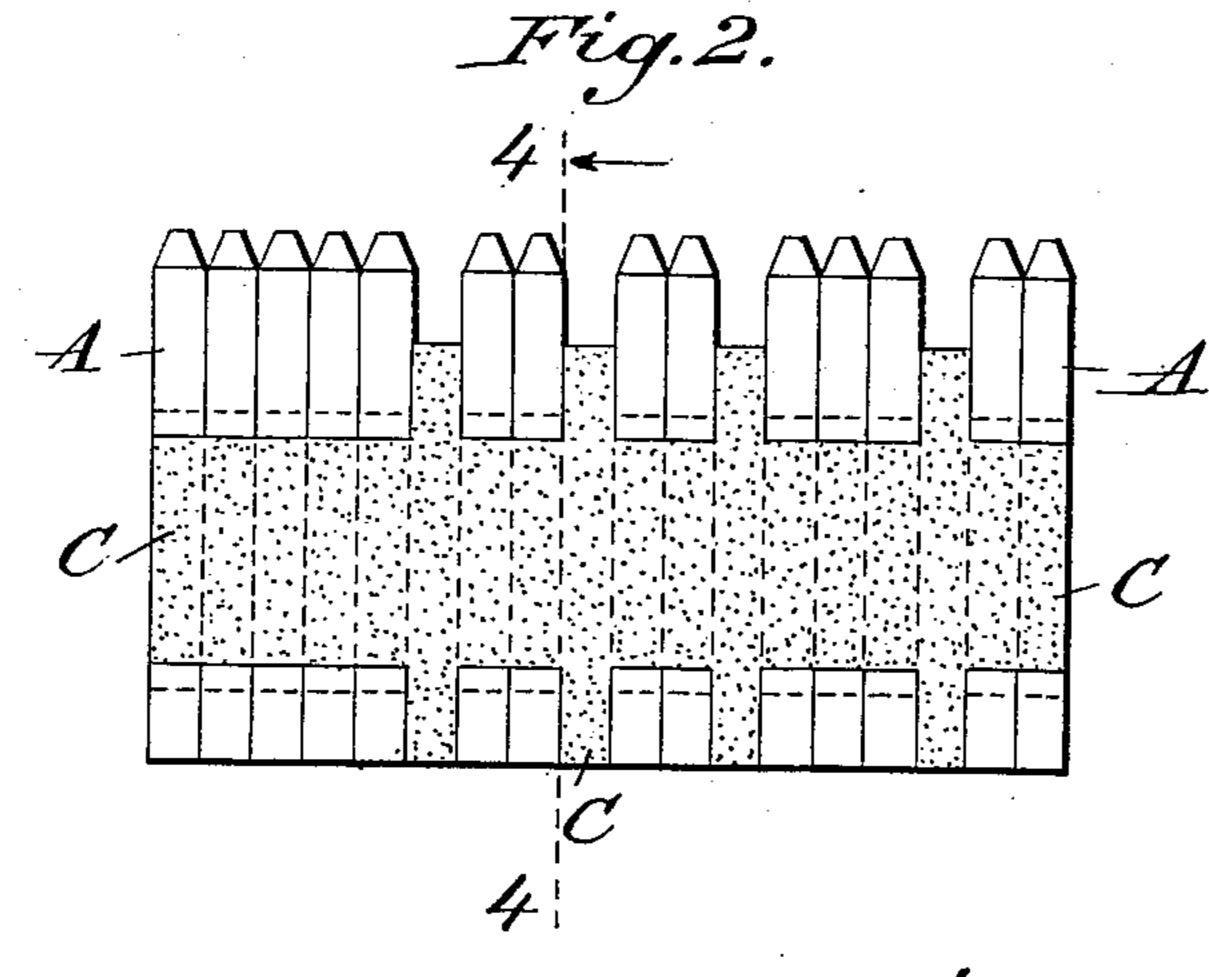
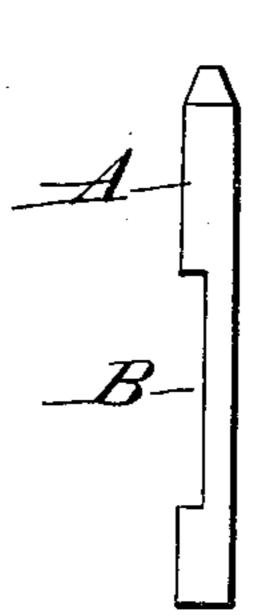


Fig.3.

Fig.4.



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L.a. Brott
Inventor
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his

attorney

Witnesses

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United States Patent Office.

LUCIEN A. BROTT, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE COM-POSITE TYPE BAR COMPANY, OF JERSEY CITY, NEW JERSEY, A COR-PORATION OF NEW JERSEY.

COMPOSITE TYPE-BAR.

SPECIFICATION forming part of Letters Patent No. 694,308, dated February 25, 1902.

Application filed July 1, 1897. Serial No. 643,105. (No model.)

To all whom it may concern:

Be it known that I, LUCIEN A. BROTT, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Composite Type-Bars; 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 the typographic art. Its object is to provide a type-bar composed of separately-cast type or type elements held together and spaced by means of metal cast into recesses in the type and the intervals between the types.

In the drawings, Figure 1 designates the line of type as assembled. Fig. 2 is a similar view of the same line of type united to form the composite bar. Fig. 3 is a side elevation of one of the types, and Fig. 4 is a section on line 4 4 of Fig. 2.

A designates the separate-cast types formed with a transverse recess B upon one side, the recess being illustrated as of a dovetail form.

C designates the additional metal which flows into the recesses and between the type to form a metal binder, a combined lock and spaces to transform the line of type into a type30 bar, with attached but separate types and adjacent spaces.

I have termed my type-bar a "composite" type-bar to distinguish it from the common cast line of type and also from the common indented bar of type produced by matrix-machines.

My bar comprises a series of separate units or types, which should bear carefully and separately formed characters. These units may be composed by hand or by machinery and may be likewise justified. After justification,

the justifiers entering, preferably, near the heads of the types, the units are bound and locked together by molten metal, which is forced into the mold formed by the shanks of 45 the units below the point at which the justifiers enter. The justifiers are then removed.

The molten metal in running fuses the surface of the shanks of the types and tends to bind them together; but this binding is not 50 relied upon solely, the locking of the metal in the recesses and the joining of the lock with the cast spaces giving the required security.

Having thus fully described my invention, 55 what I claim as new, and desire to secure by Letters Patent, is—

1. A type-bar consisting of a line of individual types and justifying-spaces attached to adjacent types, substantially as described. 60

2. A type-bar consisting of assembled type units and an additional metal binder secured to the types and comprising spaces.

3. A composite type-bar consisting of assembled recessed types, and an additional 65 metal binder lying in the recesses and intervals between the types.

4. A justified line or bar of type comprising separate but attached types and spaces.

5. An improved type-bar comprising a line 70 of types, and spacing-bars and a locking-slug therefor formed of type-metal, whereby the types and bars and slug may be melted down and be reused, substantially as shown and described.

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

LUCIEN A. BROTT.

Witnesses:
CALEB H. JACKSON,
FRANK W. SMITH.