

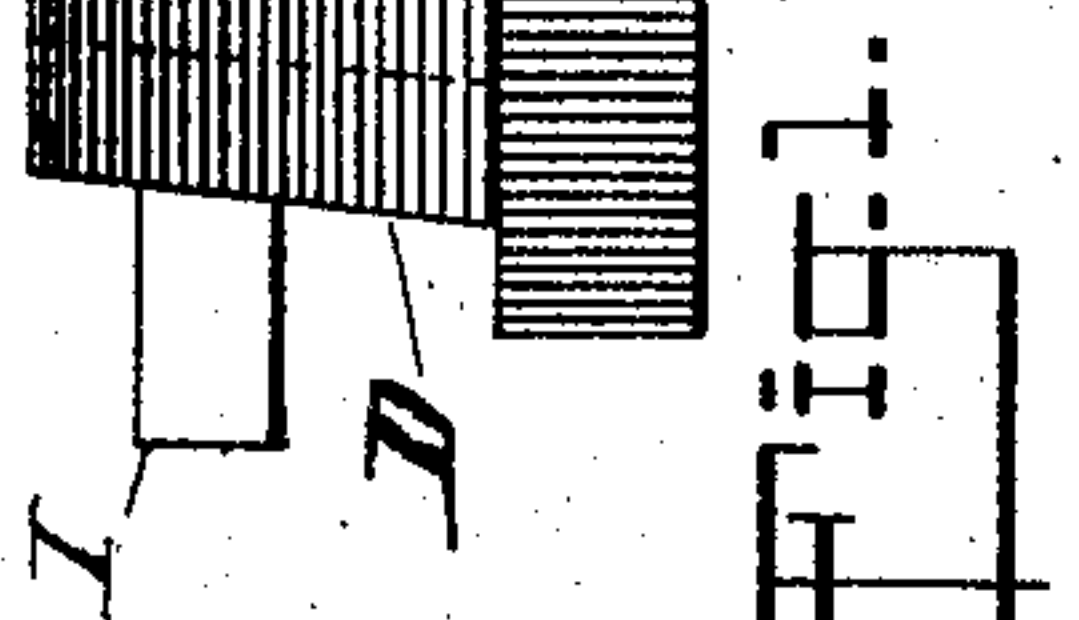
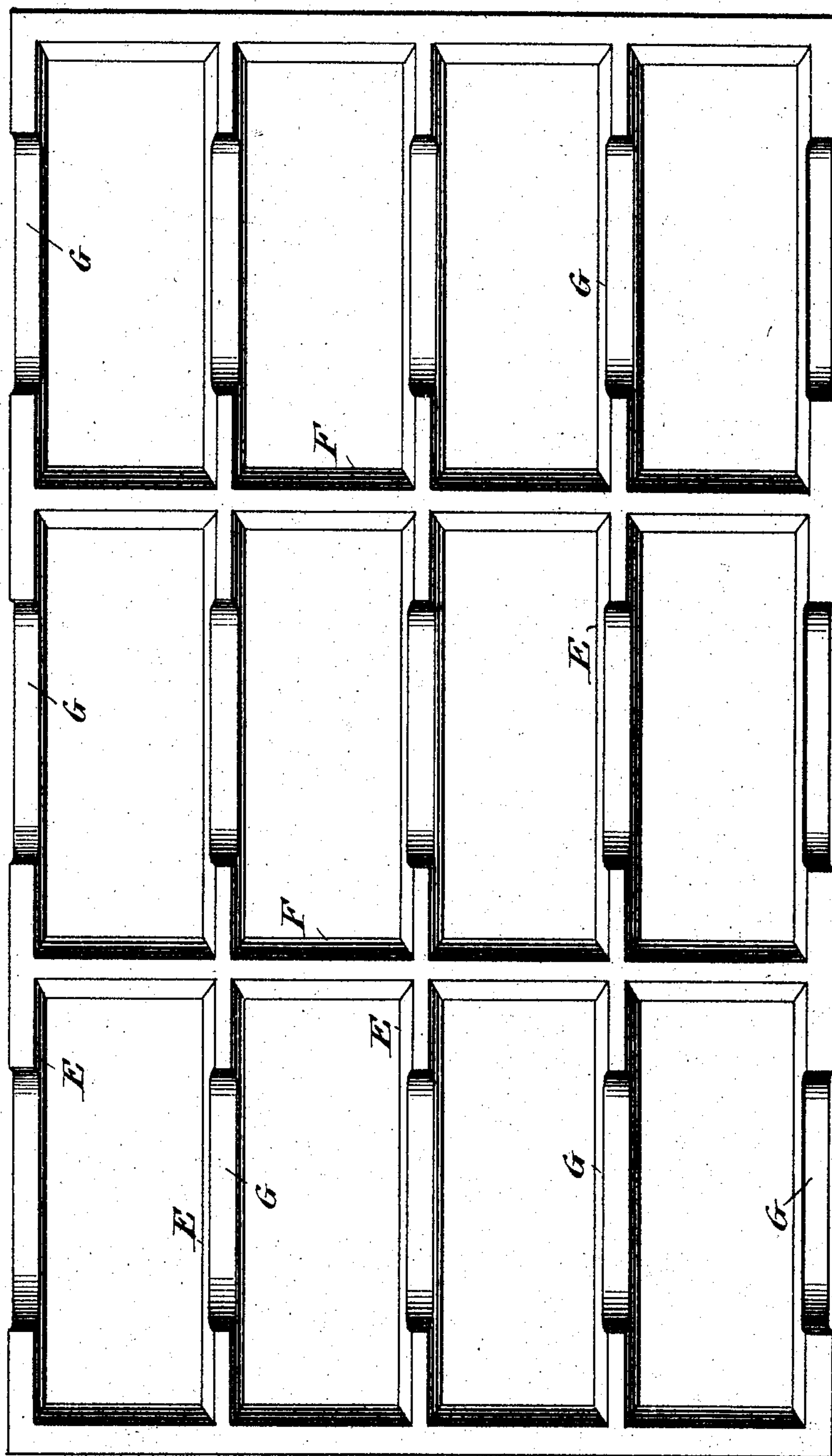
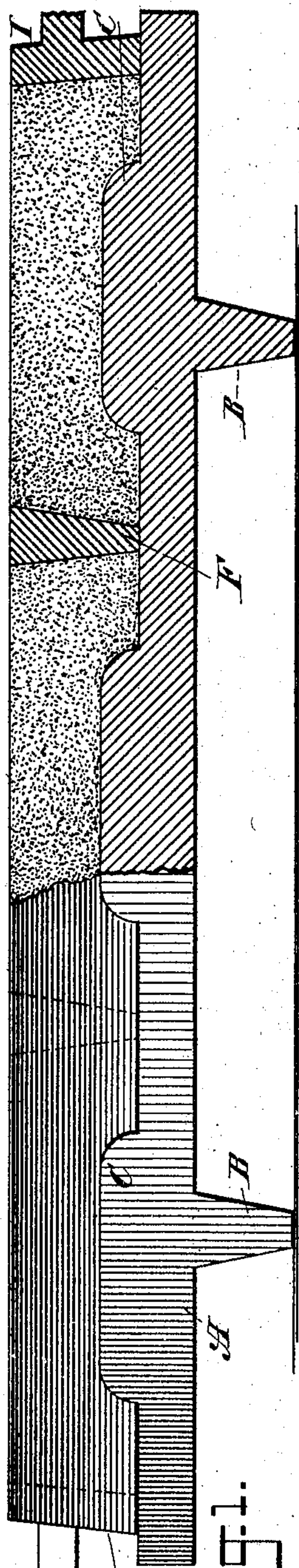
No. 781,395.

PATENTED JAN. 31, 1905.

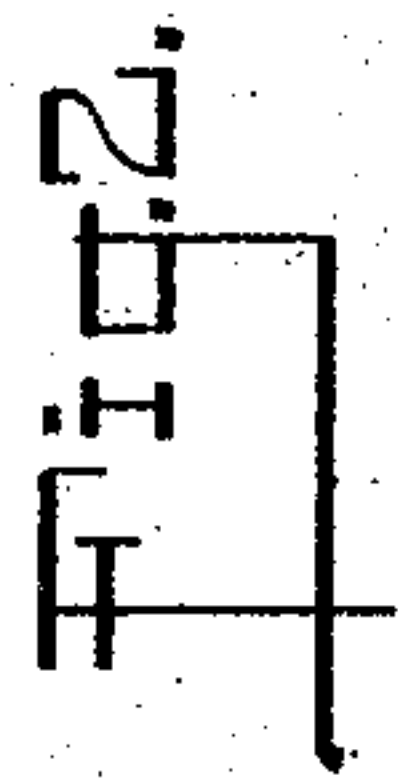
J. BREEN.  
MULTIPLE CORE BOX.

APPLICATION FILED MAR. 22, 1904.

2 SHEETS—SHEET 1.



Witnesses  
T. A. Hughes.  
N. B. Smith



John Breen Inventor  
By his Attorney George C. Clark.

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2 SHEETS—SHEET 2.

Fig. 3.

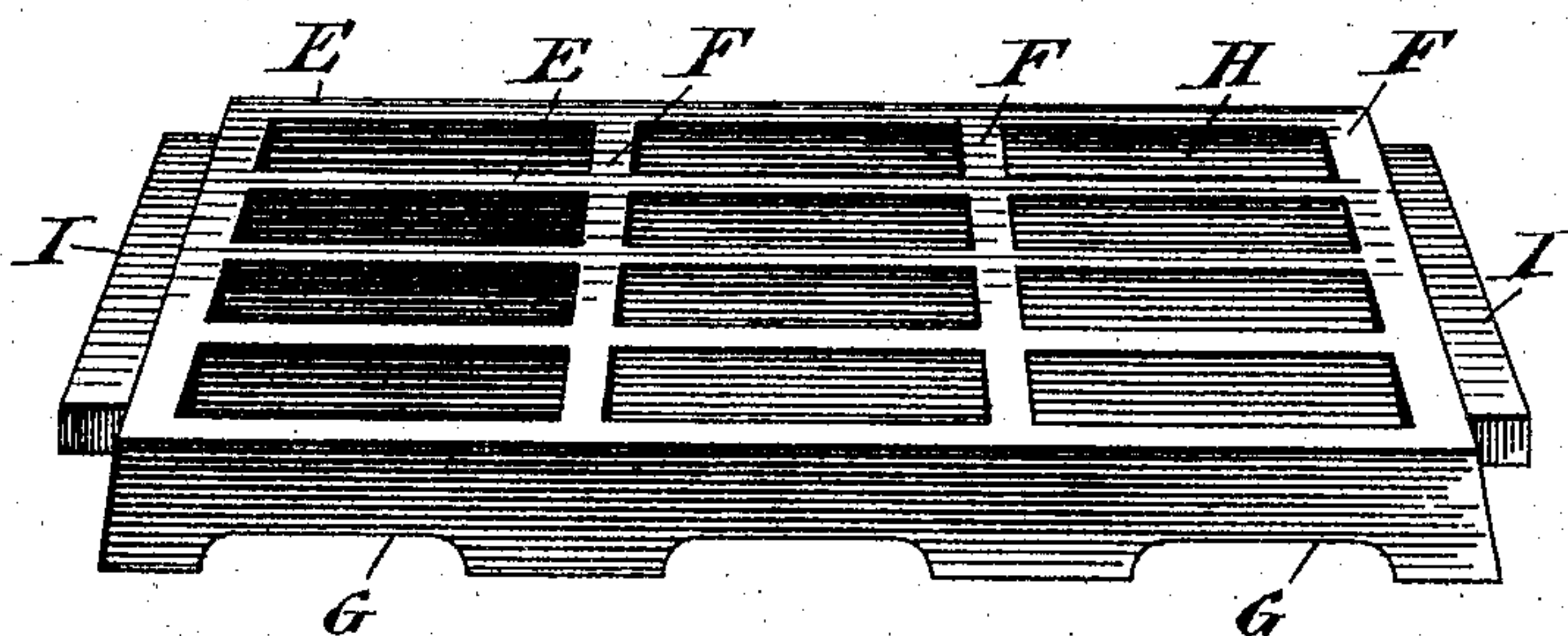


Fig. 4.

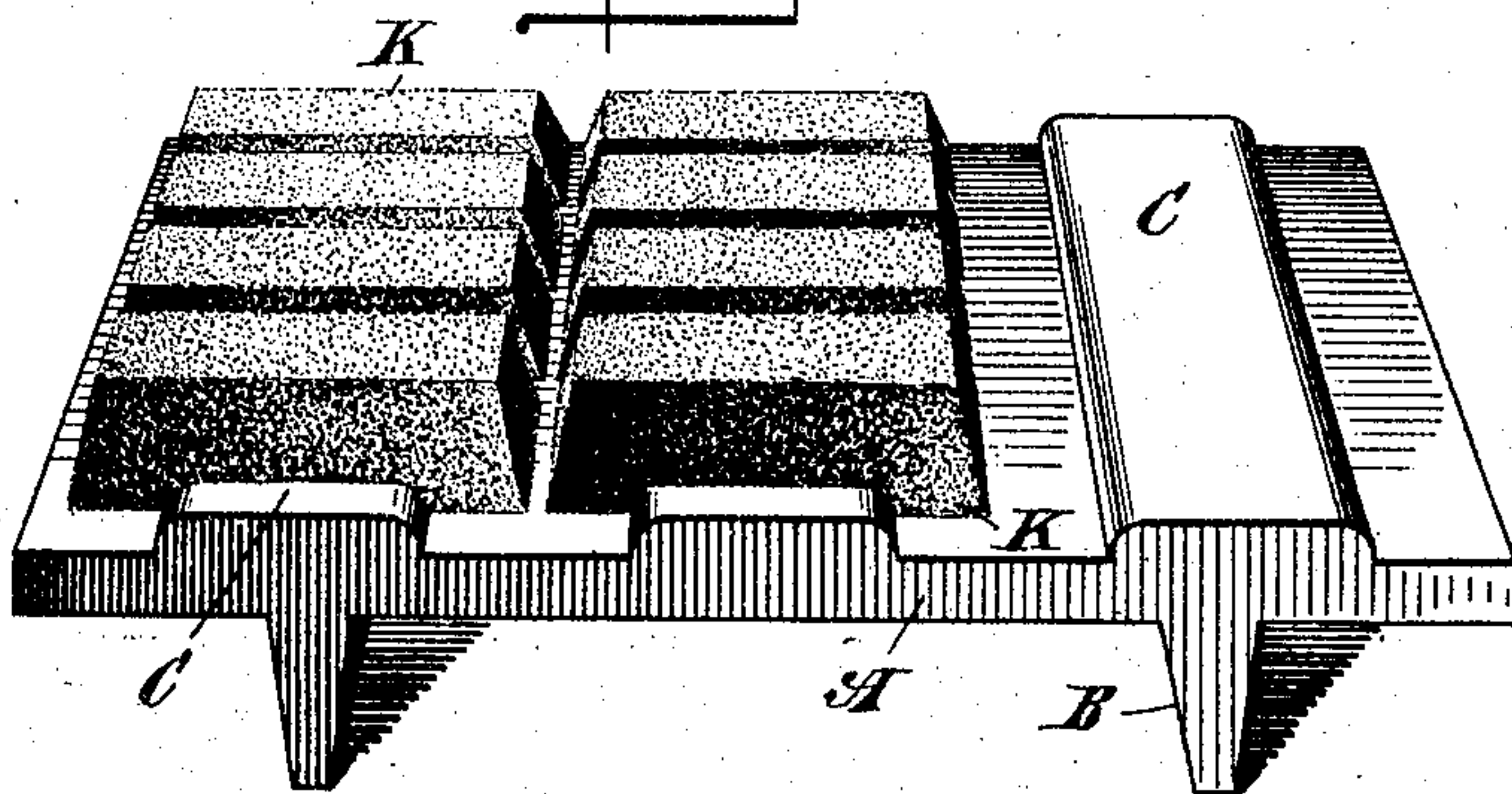
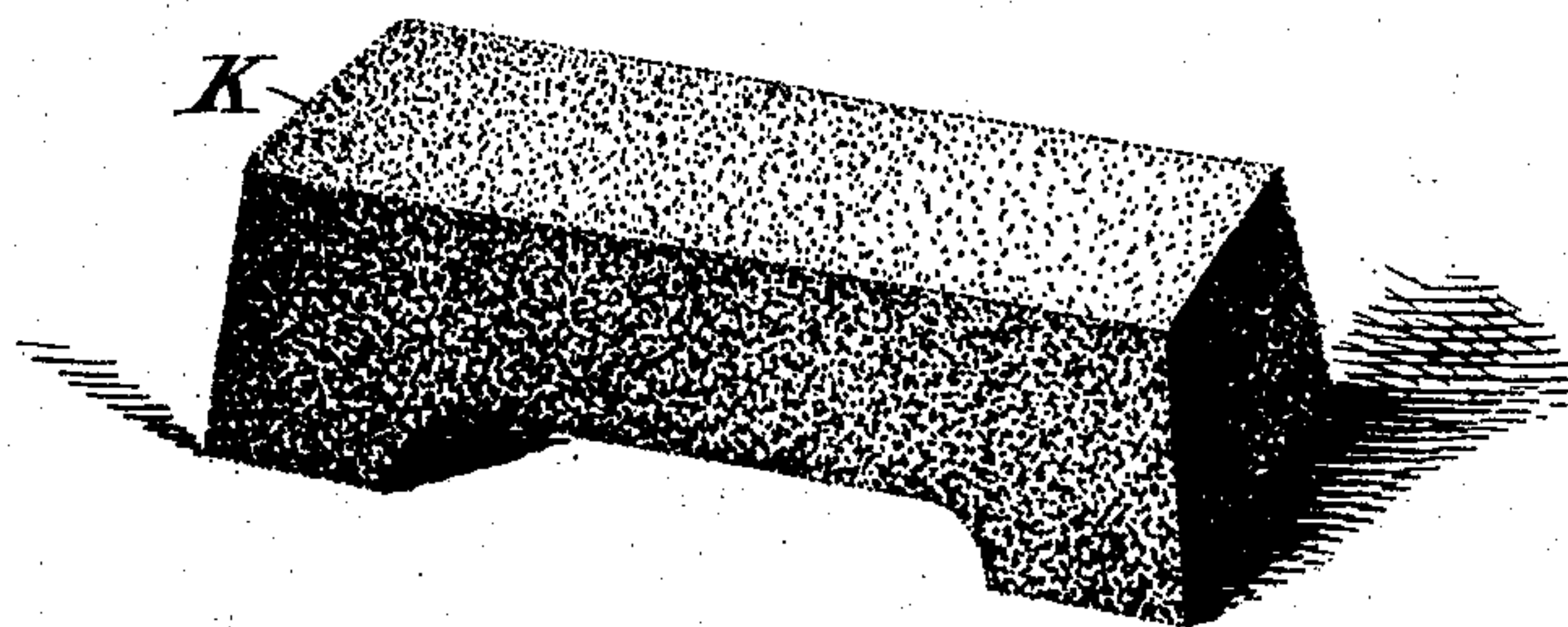


Fig. 5.



Witnesses  
*T. A. Hughes*  
*H. B. Smith*

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By his Attorney *George C. Kirk*



# UNITED STATES PATENT OFFICE.

JOHN BREEN, OF MAHWAH, NEW JERSEY, ASSIGNOR TO AMERICAN BRAKE SHOE AND-FOUNDRY COMPANY, OF MAHWAH, NEW JERSEY, A CORPORATION OF NEW JERSEY.

## MULTIPLE-CORE BOX.

SPECIFICATION forming part of Letters Patent No. 781,395, dated January 31, 1905.

Application filed March 22, 1904. Serial No. 199,445.

*To all whom it may concern:*

Be it known that I, JOHN BREEN, a citizen of the United States, and a resident of Mahwah, in the county of Bergen and State of New Jersey, have made and invented certain new and useful Improvements in Multiple-Core Boxes, of which the following is a specification.

My invention relates to an improved multiple-core box, the object being to provide a device of this character for use in the formation of cores employed in the casting of brake-shoes, whereby a number of such cores may be formed at one and the same time, resulting in a material saving in time and labor over the method now in use, wherein the cores are formed singly or one at a time.

With these and other ends in view the invention consists in certain novel features of construction, as will be hereinafter fully described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a view, partly in section and partly in elevation, of my improved multiple-core box. Fig. 2 is a bottom plan view of the box, the base being removed. Fig. 3 is a perspective view of the same. Fig. 4 is a perspective view of the base, having a number of cores resting thereon. Fig. 5 is a similar view of one of the cores.

Referring to the drawings, A represents the base or tray, having formed on its under side the lugs or standards B and on its upper side the transverse ribs C, the number of said ribs depending upon the number of rows or series of cores to be formed. Upon this base or tray A is supported the box D, consisting of the longitudinal plates E and the transverse plates F, these plates constituting the sides and ends of the several compartments into which the box is thus divided, the under sides or edges of the longitudinal plates E being hollowed out, as shown at G, to receive and contain the transverse ribs C, formed on the upper side of the base or tray A. It is evident, of course, that the box may be divided

or subdivided into as many compartments as may be desired, that which I have used in practice with good results and which may be conveniently handled by the workmen being divided into forty-two compartments.

In practice the box D is properly placed upon the tray or base A, as shown in Fig. 1 of the drawings, after which the compartments H are filled with sand or other proper material, packed tightly therein, the upper surface of the same being scraped smooth and flush with the upper edges of the plates E and F. The box is then gently tapped by the workman in order to loosen the sand from the sides and ends of the compartment, after which, by means of the handles I, secured to the ends, it is raised from the base or tray, leaving the cores K, properly shaped and formed, resting thereon, as illustrated in Fig. 4. The base or tray A is then placed in an oven for the purpose of drying and hardening the cores, from which they (said cores) are subsequently removed in the shape as shown in Fig. 5, and ready for use in the molds in which the brake-shoes are cast, and which core serves to form the opening in the lug in said shoe to receive the key.

From the foregoing it will be understood that the device is simple in construction, consisting of but two parts—to wit, the base or tray A and the box D—and that by its use a material saving is effected in the time and labor of forming the cores over the method now commonly employed, whereby the cores are formed separately and by individual core-boxes.

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

A multiple-core box consisting of a base or tray provided with ribs extending transversely across the same, and a removable box or frame formed of a number of longitudinal and transverse plates subdividing said box or frame into a number of compartments, the lower

edges of said longitudinal plates being hollowed out for the reception of said ribs, whereby each compartment is provided with a bottom and four sides and each adapted to contain a core of the same size and shape thereof, substantially as described.

Signed at Mahwah, in the county of Bergen

and State of New Jersey, this 16th day of March, A. D. 1904.

JOHN BREEN.

Witnesses:

A. G. JACOBS,

B. F. SHAW.