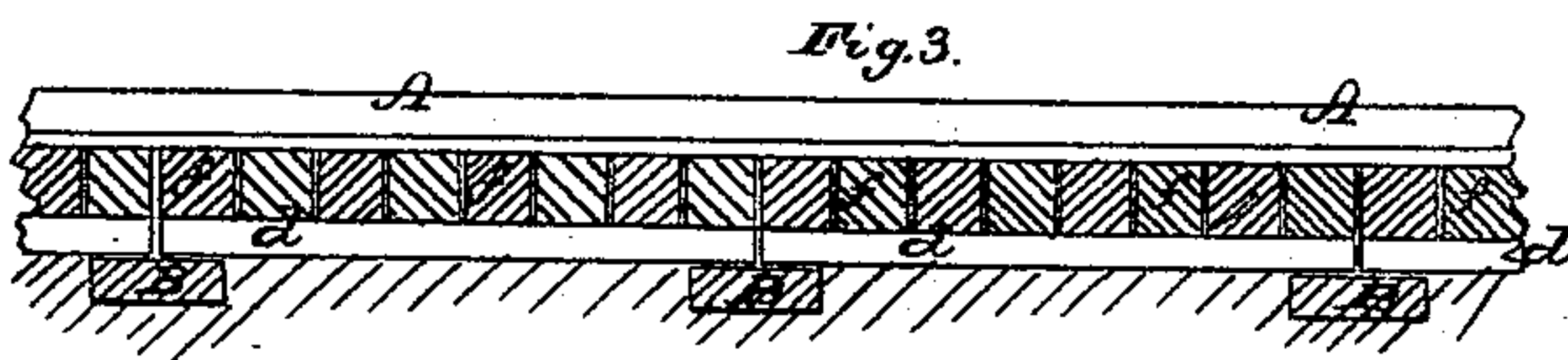
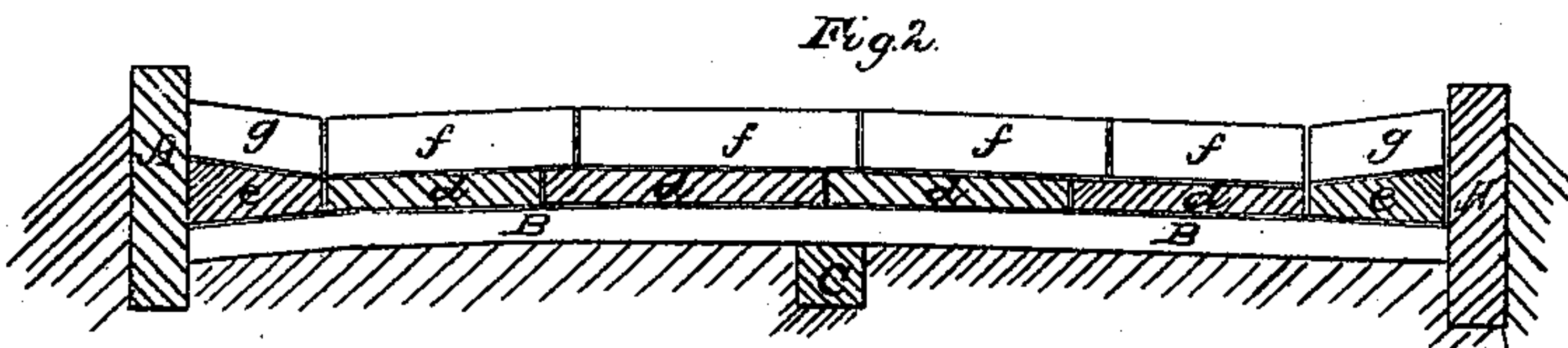
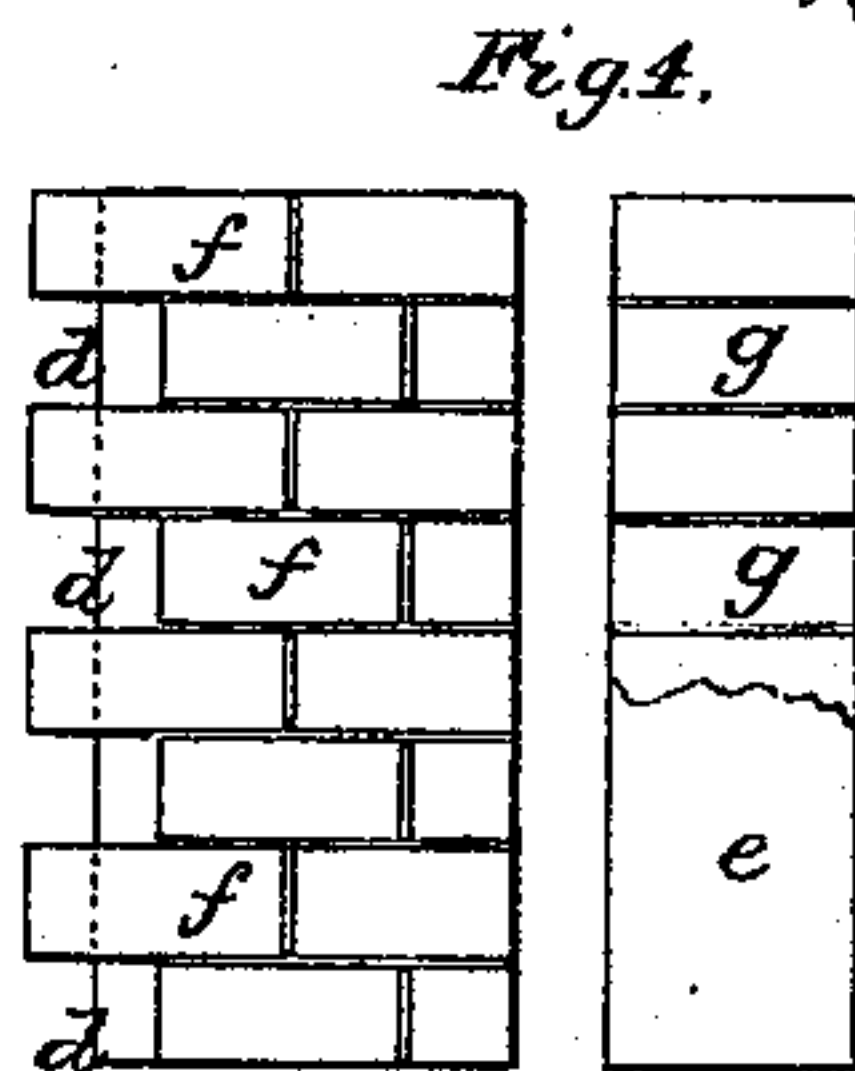
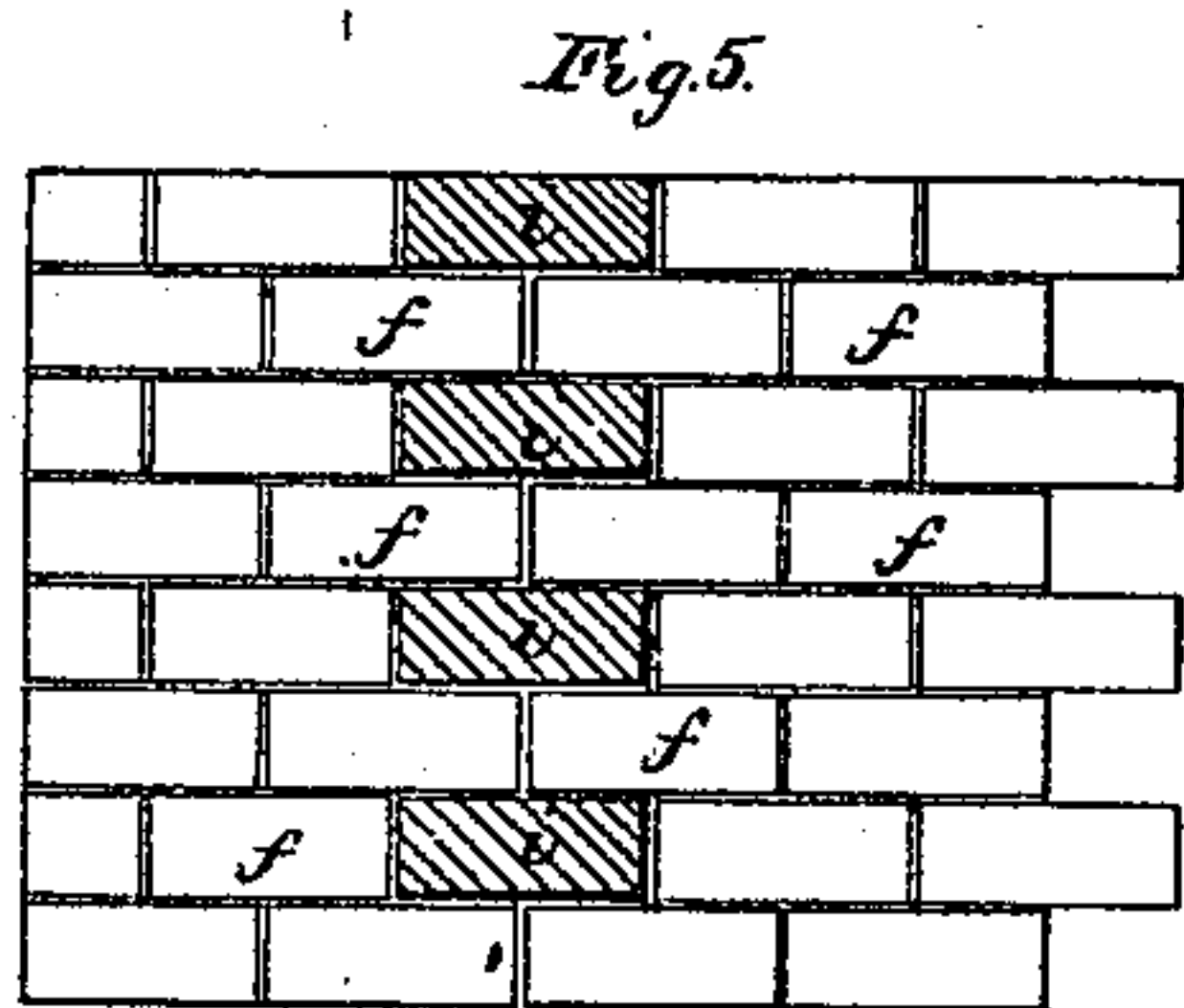
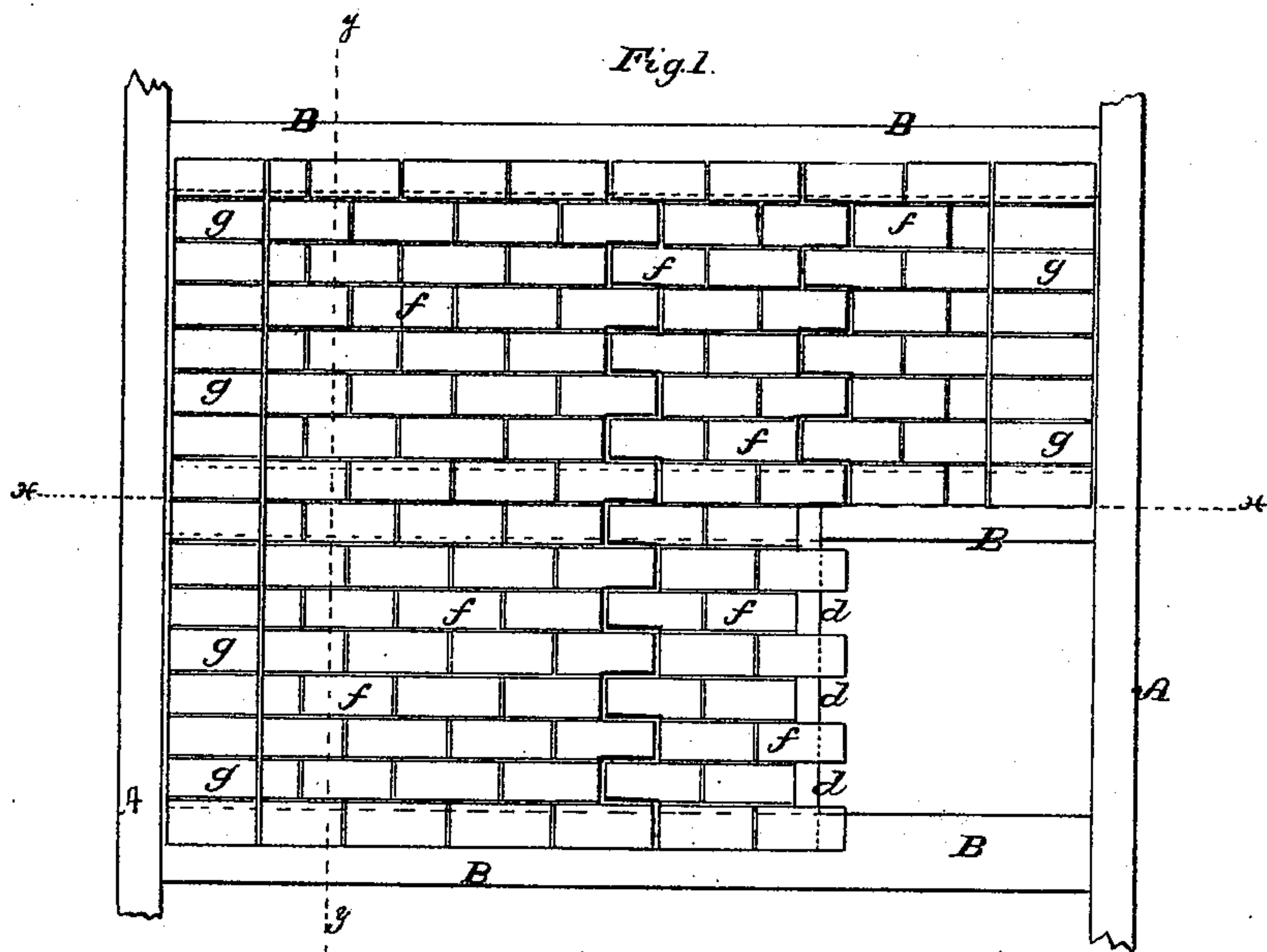


J. L. Brown.

Wood Pavement.

N^o 40, 514.

Patented Nov. 5, 1867.



Witnesses.
Wm. M. Carter
J. B. Carter

Inventor.
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By his atty.
J. A. McArthur

United States Patent Office.

J. L. BROWN, OF NEW YORK, N. Y.

Letters Patent No. 70,514, dated November 5, 1867.

IMPROVED WOOD PAVEMENT.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, J. L. BROWN, of New York, of New York county, in the State of New York, have invented certain new and useful Improvements in Wooden Street-Pavements; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this application.

My invention relates to a new method of constructing wooden street-pavements.

Previous to my invention numerous methods have been devised of forming street-pavements of wood, but all of the systems so far devised, that I am aware of, are subject to serious objections in a practical point of view, among which may be mentioned, as the greatest, the liability of derangement by the removal and relaying of a portion of the pavement. As it is essentially necessary often to take up small portions or sections of a street-pavement in order to get at sewers, water and gas pipes, &c., for repairs, connections, &c., it is a great desideratum to have a street-pavement so constructed that small portions or sections of it may be readily taken up and replaced, and so that when relaid such portions shall appear and continue to be in as perfect condition as when first laid. And to afford such a character of wooden street-pavement, and one which at the same time shall be equally as or more durable and desirable in other ways than any heretofore made, is the object of my invention, which consists in a wooden street-pavement formed of foundation-timbers embedded in a suitable earth or composition basis, and sprung in an arched shape from curb to curb, in connection with suitable sections of wooden pavement, arranged to rest upon said arched timbers, and also upon the intermediate earth or composition foundation, and formed so as to properly interlock with each other and present a suitable street surface, all as will be hereinafter more fully explained.

To enable those skilled in the art to make and use my invention, I will proceed to describe it more fully, referring by letters to the accompanying drawings, in which—

Figure 1 is a top view of a portion of street paved according to my invention.

Figure 2 is a vertical cross-section of the same at the line *x x*, fig. 1.

Figure 3 is a vertical longitudinal section at the line *y y*, fig. 1.

Figure 4 is a detached top view of two sections removed from street, shown at fig. 1; and

Figure 5 is a top view of two sections showing a modification in the manner of forming and interlocking them.

In the several figures the same parts will be found designated by the same letter of reference.

A A are the curb-stones on each side of the street. The space between the curb-stones, and on which the pavement is to be laid, should be filled in with earth and gravel, or any suitable foundation material or composition, and tamped or rolled down into shape, so as to present the proper curved or arched form, as seen at fig. 2, and a centre-board or timber, *c*, may be used, if deemed expedient, to serve as a guide for the centre line or crown of the arched street surface, and as an additional means of strength. Over this prepared surface I place, at suitable intervals, say four or five feet apart, cross-timbers, B B, &c. These cross-timbers are sprung in between the curb-stones A A, so as to conform to the curvature of the foundation, as seen at fig. 2, and if necessary should be keyed in position. I then fill in between these arched timbers and up about flush with their top surfaces with gravel, or any suitable material or composition, as seen at fig. 3. And on top of this surface, and lapping into and resting also upon the arched timbers B, I place the sections of wooden pavement *f f*, as clearly shown in the drawings. These sections may be formed, as shown, of wooden blocks, properly shaped and prepared, and so arranged as to interlock with each other. At figs. 1, 2, 3, 4, the sections are shown as composed of blocks *f f*, suitably shaped and secured to bottom pieces *d d*, &c., and so arranged that they overlap the timbers B B, and also interlock with and overlap each other, (see figs. 2, 1, and 4.)

At fig. 5 I have shown another modification of the sections, in which they are made with openings where they come together, which are filled in with separate pieces, *i i*, &c., which are put in after the sections are laid down, and which key them together. Of course the wood of which the sections are composed is all properly chemically prepared, as is customary for the construction of wooden street-pavements, and the shape, size, &c., of the blocks may be varied at the will of the engineer. *g e* are the sections which form the gutters, and are laid in tight, and may be keyed from the curb-stones, if deemed expedient. The surface, after being laid as

described, may be covered with any suitable preparation to fill in the crevices, cement the whole firmly, and perfect the pavement surface and render it durable.

It will be seen that with a pavement constructed as described, one or more of the sections may be readily taken up, and an excavation made large enough for all necessary purposes, without jarring or disturbing the rest of the pavement, as would occur where the earth is planked over entirely, as in some kinds of street-pavement, and that the arched timbers B B will maintain their positions and hold the balance of the sections securely while such excavation is being made; and it will also be seen that when the hole made shall have been filled in and properly tamped or beaten down, the detached section, when replaced, will take its former bearing in the arched timbers, as well as a bearing on the foundation of earth. And it will be understood that since the arched timbers depend partially for their support on the earth or composition foundation, and the sections bear on both the earth and the timbers B B, the said timbers and sections will tend naturally to adjust themselves by their own gravity and the strain on them to a uniform bearing on the main foundation, and to always maintain such adjustment.

It will be understood that my invention does not relate to nor is it confined in any manner to any particular kind or arrangement together of block, or to any particular system of interlocking or keying the sections together, the gist of my invention resting in the idea of combining with any suitable pavement-sections, and a proper basis of earth or composition, a series of arched or sprung timbers running from one side to the other of the street, and arranged at intervals, and so as to partially sustain the street surface in the manner explained.

Having described my invention so that one skilled in the art can make and use the same, what I claim as new, and desire to secure by Letters Patent, is—

The employment of arched formation timbers, laid crosswise of the street, in combination with any suitable earthy foundation, and sections of wooden pavement resting upon such foundation, and overlapping the arched timbers, substantially as described.

In testimony whereof I have hereunto set my hand and seal this day of August, 1867.

J. L. BROWN. [L. s.]

Witnesses:

G. W. FALLER,
J. N. McINTYRE.