A. Farrar,

Iron Pavement.

No. 98,480. Patented Jan. 4. 1870.

Fig. 1.

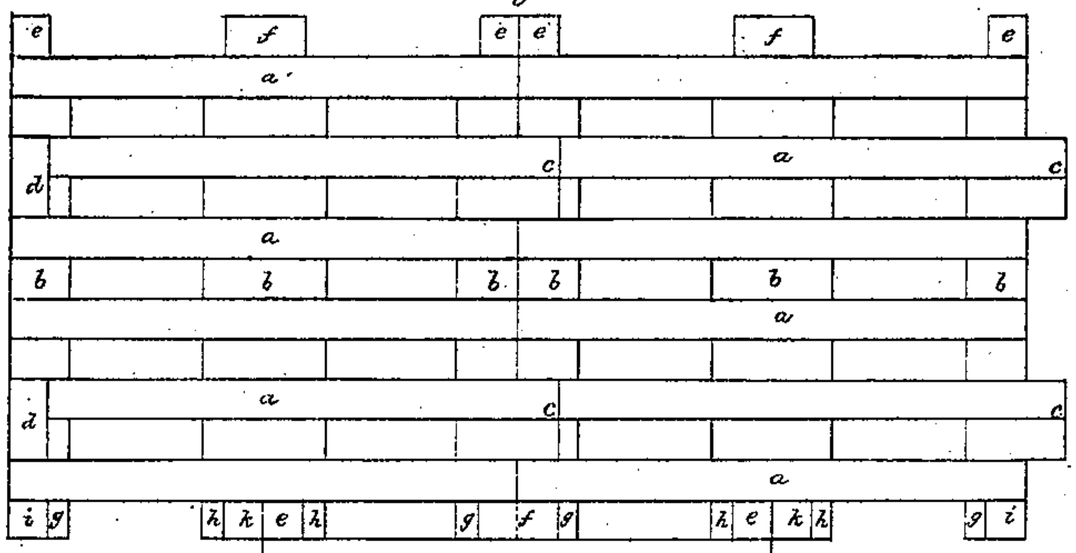
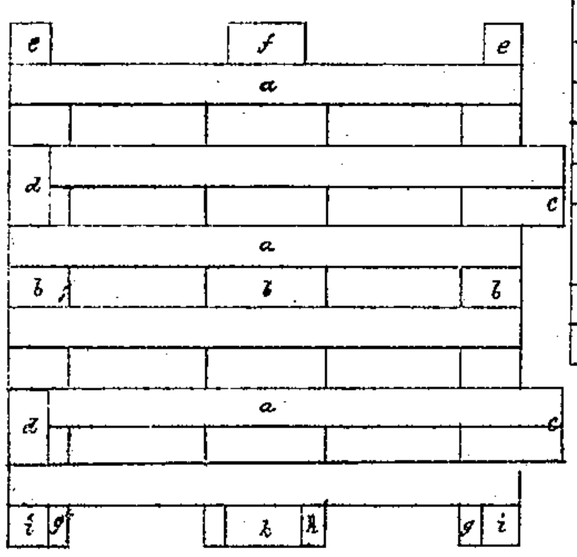


Fig. 2.



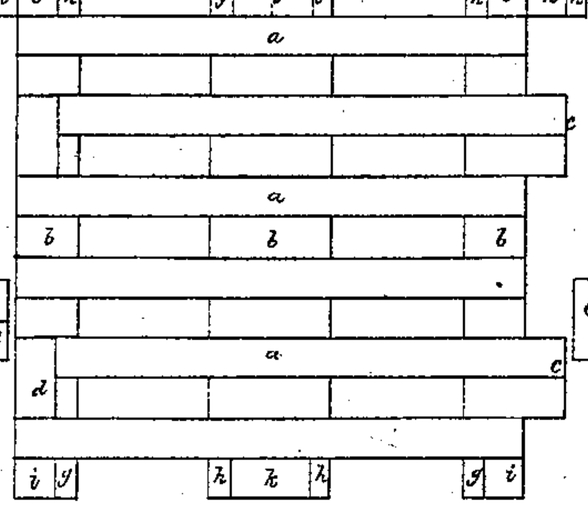


Fig. 7.

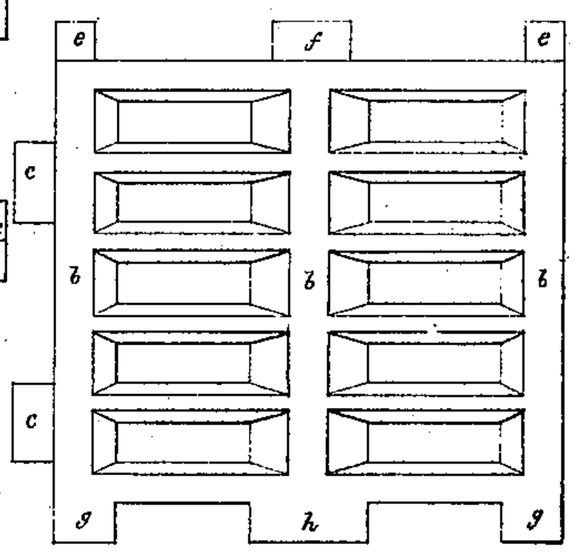


Fig. 3.

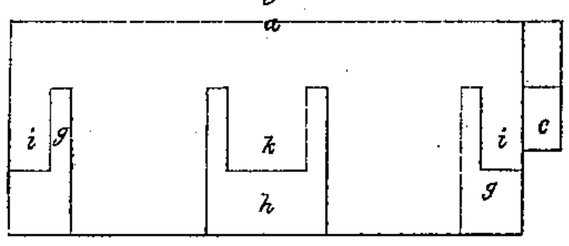


Fig. 4.

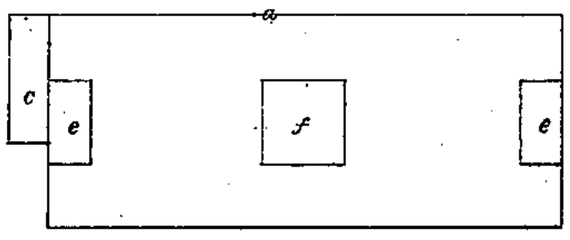


Fig. 5.

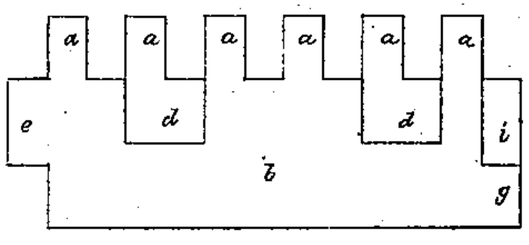


Fig. 6.

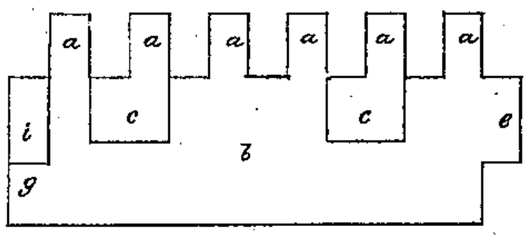


Fig. 8.

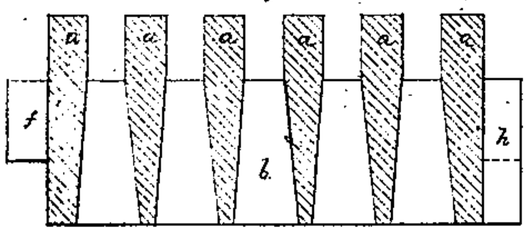
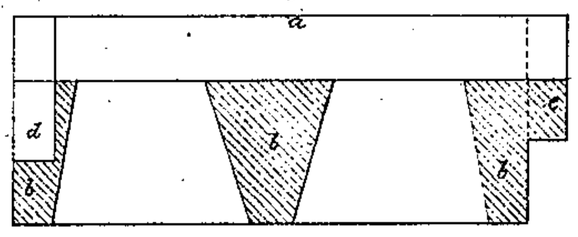


Fig. 9.



Witnesses.

S. N. Pepper

J. A. Brown

Alanzo Farrar.

by his attorney.

R. H. Eddy

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALONZO FARRAR, OF LONGWOOD, MASSACHUSETTS.

IMPROVED CAST-IRON PAVEMENT.

Specification forming part of Letters Patent No. **98,480**, dated January 4, 1870.

To all whom it may concern:

Be it known that I, ALONZO FARRAR, of Longwood, of the county of Norfolk and State of Massachusetts, have made a new and useful invention having reference to Iron Pavements; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view of a series of my improved sections or blocks, as they may be termed, as arranged for composing a pavement. Fig. 2 is a top view of one of such blocks or sections. Figs. 3 and 4 are opposite side elevations, and Figs. 5 and 6 are opposite end elevations of it. Fig. 7 is an under side view of it. Fig. 8 is a transverse section, and Fig. 9 a longitudinal section of it.

In some respects each section resembles the grate of a furnace, it being composed of a series of narrow and deep bars, *a a*, arranged parallel to each other, and joined by transverse connections *b b b*, the bars *a a a* being extended above the said connections.

One end of the block or section has two tenons, *c c*, projected from it, the other end having corresponding mortises or recesses *d d* made in it. One side of the block also has two narrow tenons, *e e*, and one wider tenon, *f*, extended from it, each tenon *e* being a width about one-half of that of the tenon *f*.

From the opposite of the block projections *g h g* are extended. Each of the outer projections *g g* has a recess, *i*, formed in it, such recess being equal in size to each of the tenons *e*.

A recess, *k*, equal in size to the tenon *f*, is made in the projection *h*.

Furthermore, the bars *a a*, as well as each of their connections, is diminished in size as they descend, the same being as represented in the drawings, such being in order to form dovetailed or frusto-pyramidal chambers or spaces between the bars.

After the pavement composed of such sections may have been laid, earth, or a composition of bitumen, or cement and gravel, or broken stone is to be rammed or filled into the spaces between the bars, and into the said dovetailed chambers, the latter operating to prevent the earth or the composition from being forced out of the chambers or between the bars by frost, or by the action of carriage-wheels, or that of the feet of horses or animals.

In making a pavement with such sections, they are to be arranged end to end, with the tenons *c c* of each one entered into the recesses or mortises *d d* of the next one in advance. Next, another block or section should be laid alongside of each two blocks, so applied together as to "break-joint" with them, the external tenons *e e* being placed within the middle recesses *k k* of the first and second blocks, in which case the larger tenon *f* will project into the recesses *i i* at the junction of the first and second blocks.

The third block so applied to the other two will lock them together, so as to prevent them from being drawn apart. At the same time the first and second blocks will support the third block, so that it cannot be depressed without depressing them.

Finally, the first block, by overlapping the second, or by being tenoned into it, will be supported by it from being depressed.

By proceeding in this manner to lay the blocks or sections, each will be interlocked with those next and around it, so as to be supported by them.

When the blocks are laid in a roadway, the bars of each should range in a direction across such roadway, in order that the shoes or hoofs of horses or animals may be supported to the best advantage while the animal may be drawing a load.

I claim as my invention—

1. Each pavement-block or grated section made in manner substantially as described—viz., with the series of parallel bars, transverse connections having tenons or projections, and recesses or mortises disposed at its sides and ends, in manner as set forth.

2. The block or section as so made, and as constructed, with its bars and transverse connections, or with either the bars or transverse connections tapered, in manner and for the purpose substantially as specified.

ALONZO FARRAR.

Witnesses:

R. H. EDDY,

J. R. SNOW.