No. 632,523. Patented Sept. 5, 1899.

G. FUGMAN.

FIREPROOF CONSTRUCTION.

(Application filed Apr. 27, 1899.)

(No Model.)

FIG. I.

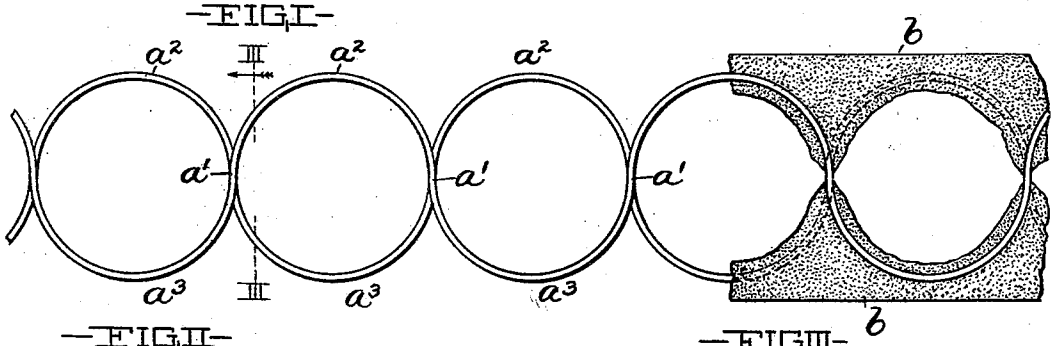


FIG. II.

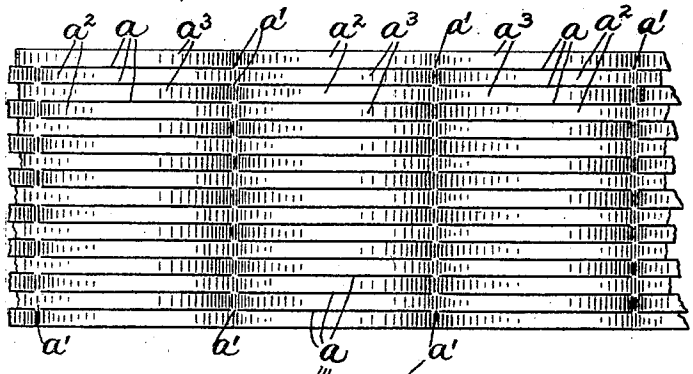


FIG. III.

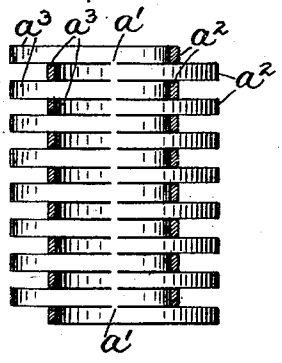
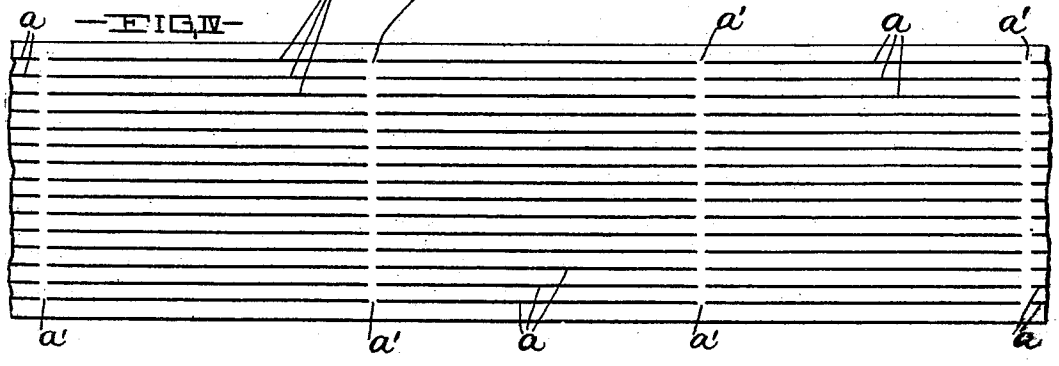


FIG. IV.



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UNITED STATES PATENT OFFICE.

GODFREY FUGMAN, OF CLEVELAND, OHIO.

FIREPROOF CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 632,523, dated September 5, 1899.

Application filed April 27, 1899. Serial No. 714,670. (No model.)

To all whom it may concern:

Be it known that I, GODFREY FUGMAN, a resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented certain new and useful Improvements in Fireproof Construction; 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 pertains to make and use the same.

My invention relates to improvements in fireproof construction for buildings, and more especially to partitions or walls for buildings.

The primary object of the invention is to provide an improved metallic body for a partition, a body that is strong and durable and inexpensive in construction, that requires little labor in its erection, that does not require studding, posts, or uprights for supporting it, and that requires comparatively little plaster in plastering the body and forms a very adequate support for the plaster.

With this object in view my invention consists in certain features of construction hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure I is a top plan of my improved body for a portion of a partition or wall, and a portion of the body is plastered upon opposite sides. Fig. II is a side elevation of a portion of the body. Fig. III is a vertical section on line III III, Fig. I, looking in the direction of the arrow. Fig. IV shows a portion of the metallic sheet or blank employed in making the body.

My improved metallic body that, as already indicated, is more especially designed for use in constructing partitions or walls for buildings is made from a metallic sheet. (Shown in Fig. IV.) This sheet is provided with any suitable number of rows of preferably parallel slits a, extending transversely of the respective row. Adjacent rows of slits are arranged in very close proximity to each other, so as to leave a very narrow plain or unslitted portion a' between adjacent rows of slits. The portion of the sheet between adjacent slits of each row of slits is bent laterally in any approved manner and semicircularly or approximately semicircularly, so as to form a semicircular or approximately semicircular wing, and the portions between the slits of each row of slits are bent preferably alternately in opposite directions, so as form two rows of wings a^2 and a^3 upon opposite sides, respectively, of the bodyand so that the wings of each of the said rows shall alternate with the wings of the other row. The slits of each row of slits are arranged, preferably, only a short distance apart, so as to result in the formation of a partition or wall having lateral wings or arches that are narrow in a vertical direction.

The drawings show a full-sized body suitable for the formation of a comparatively thin partition. If a thicker partition is required, the slits should be made longer and a larger blank should be employed, so that the wings or arches shall be wider from end to end. I would remark also that the wings of each row of wings upon each side of the body are arranged, preferably, so as to alternate with the wings of the adjacent row or rows of wings upon the same side of the body.

In my improved body it will be observed that each wing in each row of wings upon each side of the body is contiguous endwise with a wing or wings upon the opposite side of the body and that there is no break or offset between the said contiguous wings. Any break or offset between the said wings would materially weaken the partition, and the great importance of having each wing upon each side of the body terminate endwise directly in a wing or wings upon the opposite side of the body is therefore obvious. The narrow unslitted portions a' between the rows of slits in the blank are, when the winged body is formed, out of their original plane and are arranged at right angles or approximately at right angles to the said original plane, as shown very clearly in Fig. III, and this is an important factor in strengthening the body. I have observed also that the circular form of the wings is remarkable as to its capacity for strength and rigidity.

A portion of the body illustrated in Fig. I is plastered at b upon opposite sides, and it will be observed that the vertically-narrow wings of my improved body form a very adequate support for the plaster. The circular form of the wings reduces the plastering-receiving spaces between adjacent rows of

wings upon each side of the body to a minimum, and any construction that will unnecessarily enlarge the said spaces will result in a waste of plaster.

In erecting my improved partition or wall no studding, posts, or upright supports are needed. The body is of course fastened in any approved manner at the top and bottom to the floors or floor-supports above and below, respectively.

It is obvious that the unslitted portions a' a' at opposite ends, respectively, of a wing are by the peculiar formation and arrangement of the wings hereinbefore described turned in opposite directions, respectively, so that the metallic connection between adjacent ends of adjacent reversely-arranged wings may be still further reduced or almost eliminated by a resulting elongation of the slits between which the said wings are formed; but this reduction of the integralism between the said wings does not reduce the strength of the body that instead is materially improved in strength by the elimination of a break or offset between the said wings.

What I claim is—

1. A body for partitions or walls, made from a metallic sheet that is provided with slightly-separated rows of parallel slits arranged a short distance apart, and has the portions between the slits bent laterally into a semicircular or approximately semicircular form, substantially as and for the purpose set forth.

2. A metallic body for partitions or walls provided with slightly-separated rows of laterally-projecting wings formed a short distance apart upon each side of the body and having wings in each row of wings arranged alternately and having the wings in each row of wings alternating with wings of the adjacent row or rows of wings upon the same side of the body, substantially as shown, for the purpose specified.

3. A metallic body of the character indicated having upright rows of laterally-projecting wings or members upon each side of the body, the wings of each row alternating with the wings of the opposite row and alternating with the wings of the adjacent row or rows upon the same side of the body, and each wing of each row of wings terminating endwise in a wing or wings upon the body's opposite side without the formation of any break or offset between the said wings, substantially as shown, for the purpose specified.

4. A metallic body of the character indicated, made from a metallic sheet having slightly-separated rows of slits a arranged transversely of the respective row, which sheet has the portions between the slits of each row of slits bent or bowed laterally so as to form two rows of wings a^2 and a^3 arranged upon opposite sides, respectively, of the body, the wings of each row of wings alternating with the wings of the opposite row and alternating with the wings of the adjacent row or rows of wings upon the same side of the body, and the unslitted portions a' between the rows of wings being bent or turned into a position at right angles or approximately at right angles to the plane of the original sheet, substantially as shown, for the purpose specified.

Signed by me at Cleveland, Ohio, this 21st day of April, 1899.

GODFREY FUGMAN.

Witnesses:
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