No. 856,000. PATENTED JUNE 4, 1907.

J. A. STRANSKY & H. RILEY.

CONSTRUCTION OF BUILDINGS.

APPLICATION FILED FEB. 5, 1907.

Fig. 1.

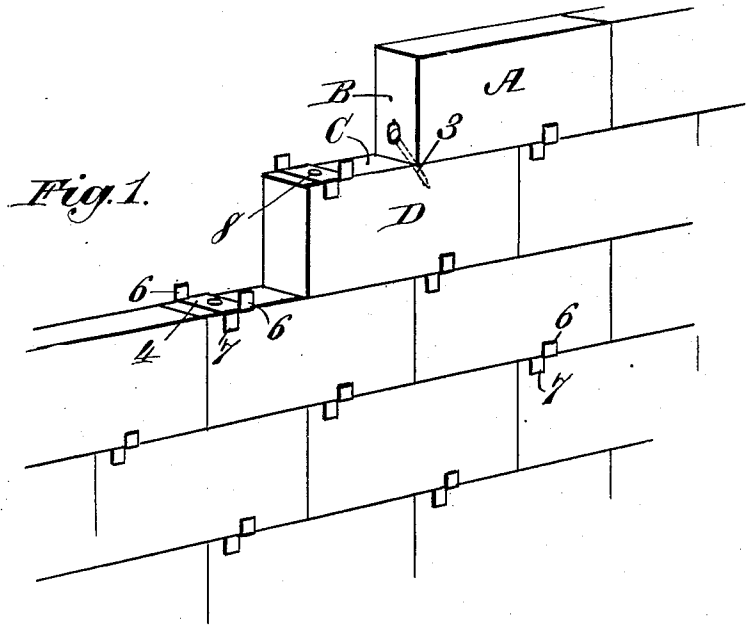


Fig. 4.

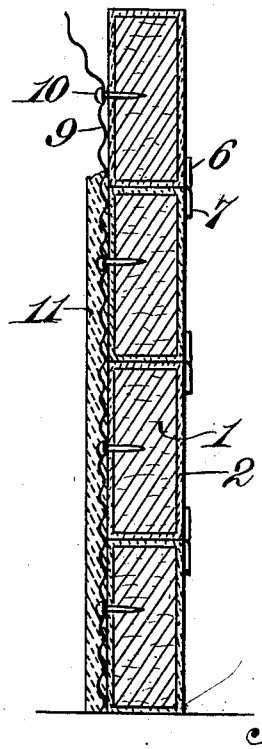


Fig. 2.

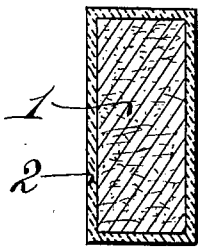
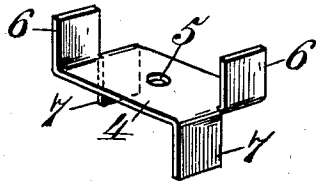


Fig. 3.



Witnesses.
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By James L. Norris. Atty.

UNITED STATES PATENT OFFICE.

JOHN A. STRANSKY, OF PUKWANA, SOUTH DAKOTA, AND HIRAM RILEY, OF VIROQUA, WISCONSIN.

CONSTRUCTION OF BUILDINGS.

No. 856,000. Specification of Letters Patent. Patented June 4, 1907.

Application filed February 5, 1907. Serial No. 355,914.

To all whom it may concern:

Be it known that we, JOHN A. STRANSKY, residing at Pukwana, in the county of Brule and State of South Dakota, and HIRAM RILEY, residing at Viroqua, in the county of Vernon and State of Wisconsin, both citizens of the United States, have invented new and useful Improvements in Construction of Buildings, of which the following is a specification.

This invention relates to the construction of buildings; and the object thereof is to build up the wall of the structure from impervious composite blocks rigidly connected to one another by holdfast devices and having the body of each block consisting of a substantially solid mass of hay, straw, bagasse or other like disintegrate fibrous material formed by exciting the agglutinant properties of the material so that the plants will adhere together when compressed.

Further objects of the invention are to set up a building wall which shall be simple in its construction, strong, durable, impervious, fire-proof, inexpensive and possessing the necessary rigidity.

With the foregoing and other objects in view the invention consists of the novel construction, combination and arrangement of parts hereinafter described and illustrated in the accompanying drawings, wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claims hereunto appended.

In describing the invention in detail reference is had to the accompanying drawings wherein like reference characters denote corresponding parts throughout the several views, and in which—

Figure 1 is a perspective view of a portion of a building wall in accordance with this invention. Fig. 2 is a section of one of the composite blocks. Fig. 3 is a view of one of the ties, and, Fig. 4 is a section showing the front of the wall coated.

The body of each of the blocks of which the wall is constructed is formed from a mass of hay, straw, bagasse or other like disintegrate fibrous material. The term "straw" will be used in a generic sense in connection with the material from which the body of the block is formed. The straw, which is indicated by the reference character 1, is adapted to be compressed into a substantially solid mass, but before the compression step is had, the straw is dampened to excite the agglutinant properties thereof, as it is a well known fact that straw and other like substances comprise as one of their characteristics a certain amount of agglutinant. By exciting the agglutinant which was lying dormant due to the fact that the material was in a dry state, the straw possesses in itself a binding quality so that when the mass of straw is compressed to a substantially solid mass it will, owing to the excitation of the agglutinant, firmly adhere together, and, consequently prevent disintegration. After the straw has been compressed to a substantially solid mass in the form of a rectangular block or other suitable shape, it is then completely coated with a mass of cement as at 2, thereby completing what may be termed a composite impervious building block which is substantially fire-proof and the block further possesses unusual strength and durability and is furthermore conveniently handled owing to the fact that the weight thereof is comparatively light with respect to the ordinary building blocks or other composite blocks now employed for building purposes.

When the blocks are set up in courses they are secured to each other through the medium of the holdfast devices 3, which extend through one end of an upper block at an inclination and take in the block below. By way of example in this connection it will be stated that the block A has a holdfast device 3 extending through the end B at an inclination and engages in the top C of the block D upon which the block A is seated. The holdfast devices 3 extend through one end of each block, but by their engagement with the block below, the blocks of all courses are interlocked together.

To further lock the blocks of an upper course with the blocks of a lower course tie members are provided and each of which consists of a body portion 4 having a centrally-arranged opening 5. The ends of each of the body portions terminate in a pair of wings, the wings of each pair being indicated by the reference characters 6 and 7, the wings 6 projecting upwardly, while the wings 7 depend. The body portion 4 is mounted upon the top of a block of a course

and is secured to the block by the holdfast device 8. When the tie is secured in position the wings 7 straddle that block to which the tie is secured and the wings 6 straddle that block mounted upon the block to which the tie is fixed. By such an arrangement the blocks of one course are tied to the blocks of another course.

After the courses have been completed the front of the wall may be coated with any suitable material, preferably cement, and if desired the front of the wall may have an anchor in the form of a wire netting 9 secured to the blocks by the holdfast devices 10. The anchor 9 constitutes a means for anchoring the cement coating 11 as shown in Fig. 4. The cement coating will improve the appearance of the wall, as well as acting as a fire-proof medium.

It is thought the many advantages of constructing buildings in a manner as hereinbefore set forth and illustrated in the drawings will be readily understood especially in regard to the cheapness of material and the convenient manner in which the composite blocks can be laid in courses owing to the lightness of the block, and furthermore in the ready and feasible manner of interlocking the blocks of one course to the blocks of another course.

What we claim is—

1. A building wall consisting of a plurality of courses of impervious fire-proof composite blocks, each of the blocks of the courses consisting of a rectangular body portion formed from a solid mass of compressed straw and a thin coating of impervious material extending entirely around the body portion, means extending through one lower corner of a block of one course and engaging in the top of the block of another course for locking the blocks together, a tie interposed between a block of one course and a block of another course, secured to one of the blocks and provided with means overlapping both blocks, an anchor secured to the face of the wall, and a coating of cement retained in position by said anchor.

2. A building wall consisting of a plurality of courses of impervious fire-proof composite blocks, each of the blocks of the courses consisting of a rectangular body portion formed from a solid mass of compressed straw and a thin coating of impervious material extending entirely around the body portion and directly engaging the straw throughout the face of the body portion, means extending through one lower corner of a block of one course and engaging in the top of a block of another course for locking the blocks together, a tie interposed between a block of one course and a block of another course, secured to one of the blocks and provided with means for overlapping both blocks, and a coating of plastic material for the wall.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

JOHN A. STRANSKY.
HIRAM RILEY.

Witnesses to signature of John A. Stransky:

JOHN LOGAN,
MARTIN MANTZ.

Witnesses to signature of Hiram Riley:

L. W. RICHARD,
E. A. BUXTON.