This invention relates to improvements in fabricated building blocks adapted to form walls for buildings and the like.

An object of my invention is to provide a building block, which is adapted to be used for many different types of wall constructions.

Another object is to provide a building block which can readily be used in a relative wide range of different wall constructions, without preliminary or special engineering.

Another object is to provide a light easily handled building block, which can be laid by one operator by hand, without the use of erection equipment such as derricks, and the like.

Another object is to provide a building block construction which can be protected against corrosion, rust, electrolysis, and the like.

Still another object is to provide building blocks, which are adapted to receive insulating materials, and yet may be used independently of insulating material and readily sealed to prevent heat transfer therethrough.

Another object is to provide a wall having two finished surfaces, either of which is adapted to receive a finishing coat of plaster, paint, enamel, wall paper, or the like.

Another object is to provide means for preventing the formation of condensation or sweat on an inner wall surface, resulting from variations of temperature between an inner and an outer wall.

Yet other objects are to provide building blocks, which may be easily set and locked together to form a solid wall, such blocks being fabricated by mass production methods at relatively low cost, and being adapted to be quickly and easily assembled or laid.

Other objects and advantages of my invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification:

Fig. 1 is a broken elevational view of a wall illustrating one manner of disposing my building blocks in a wall.

Fig. 2 is a perspective view through the top of one of my building blocks.

Fig. 3 is a perspective view through the bottom of the above block.

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 2.

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 2.

Fig. 6 is a sectional view taken on the line 6—6 of Fig. 4.

Fig. 7 is a broken elevational view illustrating modifications of the block to form base boards and molding trim.

Fig. 8 illustrates the form of block adapted to be used as a corner member.

Fig. 9 illustrates a block forming a door jamb.

Fig. 10 illustrates a block providing a window molding, and.

Fig. 11 is a broken elevational view of a side of a block adapted to receive plastering.

The embodiment of my invention, herein disclosed, comprises a rectangularly shaped building block 12, illustrated individually in Figs. 2 and 3, shown in locked formation to form a wall in Fig. 1, and formed of any suitable material such as sheet steel, known as enameling stock, commonly used for refrigerators, stoves and the like, although other materials may be used. The block 12, illustrated herein, is pressed from one continuous sheet of steel in a well known manner, although suitable results for some purposes may be achieved by overlapping the ends and spot welding them together, or by any other suitable means.

The blocks 12 may be formed from material of suitable gage, which may be protected against corrosion, rust and moisture by being preliminarily dipped in a suitable protective coating. Porcelain enamel has been used successfully as a protective coating, due to its properties of toughness, hardness and resistance to acids and water, other suitable solutions however may be used for certain types of work. The finishes thus provided are attractive in appearance and provide walls adapted for both commercial and home uses.

The top wall 13 of the block 12 extends inwardly from each side only a short distance, each side of the top being provided with longitudinally extending ribs 14 and locking means such as tongues 15 shown in Fig. 2, which form a spring locking means, and if desired may be formed integrally with the top wall 13. The bottom wall 16 extends inwardly from the sides substantially the same distance as the top wall 13, and is provided with longitudinally extending locking channels 17, provided with reinforcing ribs 18, and raised portions 19, adapted to assist in holding and regulating the distribution of a caulking material indicated by the numeral 20, to form a tight weather-proof joint.

One end of each block 12 is provided with vertical ribs 21, the other end being provided with cooperating vertical locking channel 22. The lower part of one end is provided with an upwardly extending tongue 23, while the other end is provided with a downwardly extending cooperating tongue 24. The tongues 23 and 24 may be formed in any suitable manner, but for the purpose of economy in construction costs, they may be punched out, as illustrated in the drawing, and constitute cam means for drawing and locking the ends of the blocks 12 together.

Differences in temperature between an outside wall and an inside wall cause condensation or
sweat to form on an inside wall, and in order to prevent this, the areas between the ribs 21 and locking channels 22, constituting end panels, as shown in Figs. 2, 3, and 4, are provided with cut
out portions or slits 25 which constitute barriers for retarding the travel of heat or cold from the outer wall to the inner wall and vice versa. Atten-
tion is directed to the disposition or arrangement of the slits 25 which provide three verti-
cally and six horizontally disposed slits, thus providing ample barrier means against the trans-
fer of heat in either direction through the wall, the same being accomplished without appreci-
able weakening the strength of the wall. The slits formation 25 is adapted to be used in many other types of building blocks such as concrete blocks, bricks and the like.

The modified form of building block 12a, shown in Fig. 7, is manufactured and used the same as block 12 and carries a molding trim at the top and a base board 27 at the bottom, for interior uses. The block 12b, illustrated in Fig. 8, shows an adaption of the block 12 for use in corners. Fig. 9 shows a block 12c providing a door jamb, while Fig. 10 shows a block 12d providing a window molding.

When plastering is to be spread on a wall of the block illustrated herein, it will be found de-
irable to provide anchoring means to hold the plastering on the smooth wall surface, and the punched out lips 28, shown in Fig. 11 have been found to provide suitable anchoring means for plastering.

After the blocks illustrated in the drawing have been formed and shaped, they may be pro-
vided with a protective coating by dipping them in porcelain enamel or by providing such coating by any other desirable means. For certain types of buildings the blocks may be used with-
out a protective coating.

The blocks 12 are adapted to be disposed to form a wall, as shown in Fig. 1, it first being desirable to spread a suitable caulking compound, preferably in a semi-plastic state along the ends, top and bottom of the block. For certain uses it may be advantageous to omit the caulking compound at various points, in order to provide necessary breathing space in an obvious manner. Then a similar block 12 is disposed against an thereof in such manner that a downwardly extending tongue 24 of one block, will engage the cooperating upwardly extending tongue 23 there-
of, and the blocks will thus be drawn tightly together, at the same time the vertical ribs 21 of one block will be seated in the cooperating locking channels 22 as illustrated in Fig. 5, the caulking compound 20 will thus be spread along the cooperating ends.

A block 12 may then be placed over a similar block, as shown in Fig. 4, the tongues 15 serving to receive the inner edge portions of the superimposed block and thus hold the blocks together in locked position. This cooperation of the tongues 15 to lock the superimposed block may be satisfactorily accomplished by merely applying pressure to the upper block, and thus permits the same to be readily laid and locked. This locking together of the blocks will cause the semi-plastic caulking compound 20 to be spread along the contacting surfaces, while the reinforcing ribs 16 and raised portions 19 will serve to firmly anchor such material therein.

The block 12 is adapted to receive any suitable insulating material such as mineral wool or the like. These blocks provide a protective coating, one side may be used for the outside wall of a building, the outside coating frequently needing no finishing other than the protective coating and yet presents a neat and attractive appear-
ance. For interior walls used in industrial or commercial constructions the blocks may require no finish other than the above coating. How-
ever, for some interior constructions it may be desirable to spread a coat of plastering along the interior wall, and in such cases, the lath illustrated in Fig. 11 having upwardly disposed lips 28, serves to satisfactorily hold the plastering thereon. Wall paper may also be spread on an inner wall surface.

Wherever it is desirable for the blocks to carry building loads, other than their own weights, blocks may be filled with concrete. Obviously, cut out portions in the blocks may be provided to receive joints, beams and the like. The modifi-
cations shown in Figs. 7 through 10, provide ob-
vious variations of block shapes, contours and shapes to provide molding trim, base board, corner member, door jamb, window molding and the like.

My blocks are adapted to be laid on the ground, or on a foundation, and to be superimposed to form walls of any desired height. Obviously, blocks carrying considerable loads should be of greater thickness than blocks used in light build-

construction work.

No particular experience or training will be re-
quired of the workman building a wall of my new and novel block, and a single workman working along, can conveniently build a wall. It will be apparent to those skilled in the art that the invention disclosed herein may be vari-
ciously changed, used or modified, without depart-
ing from the spirit of the invention or sacrificing the advantages thereof, and that the present embodiment of my invention is illustrative only, and that my invention is not limited thereto.

I claim:

1. A block of the type described, including top and bottom walls provided with cooperating tongue and groove portions, at least one of said portions being provided with outwardly extending projections constituting bearing points, which are adapted to regulate the distribution of caulking compound in said grooves, whereby an even distribution of such compound is accomplished, thereby providing a water-proof joint between such block and a juxtapositioned block.

2. A building block, comprising a hollow block member, including side walls, adapted to be po-
sitioned and arranged in juxtaposition to similar-
ly arranged blocks to form a wall, the juxtapo-

sitioned walls being provided with a series of elongated slits, each slit having portions posi-
tioned and arranged in right angle relation to each other and the series of slits extending sub-
stantially from the bottom to the top margin of said block, whereby exchange of heat from the outside to the inside of said block through said slits is retarded, thereby preventing formation of condensation on the side walls due to differen-
tials in temperature between the outside and the inside walls.

ROBERT B. KUBACH.