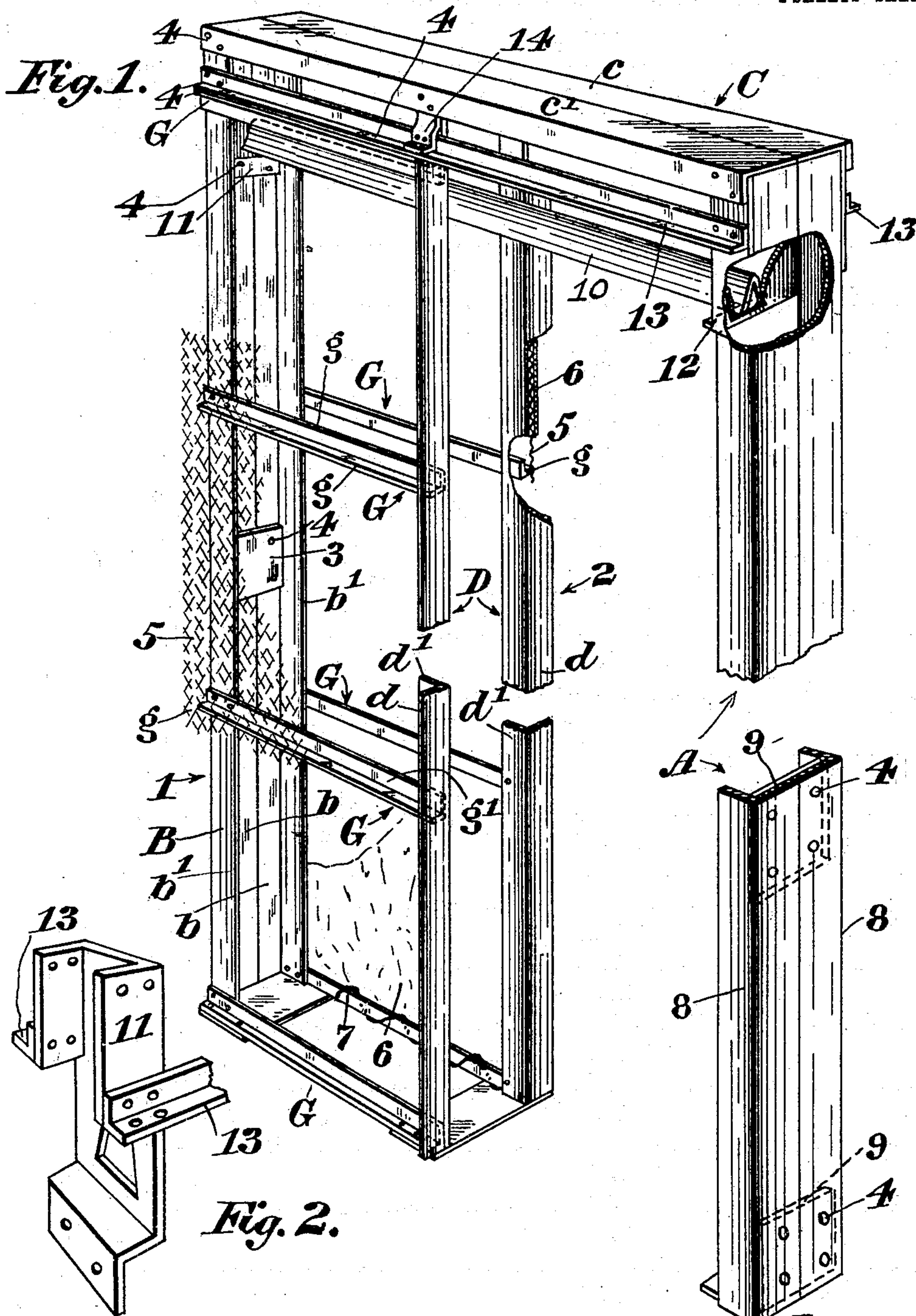


D. SCHUYLER & H. LAUGHLIN, JR.
METALLIC WALL POCKET STRUCTURE FOR SLIDING DOORS.
APPLICATION FILED JULY 26, 1904.

929,633.

Patented July 27, 1909.

2 SHEETS—SHEET 1.



Witnesses:
Frank B. Rives.
Arthur S. Platt.

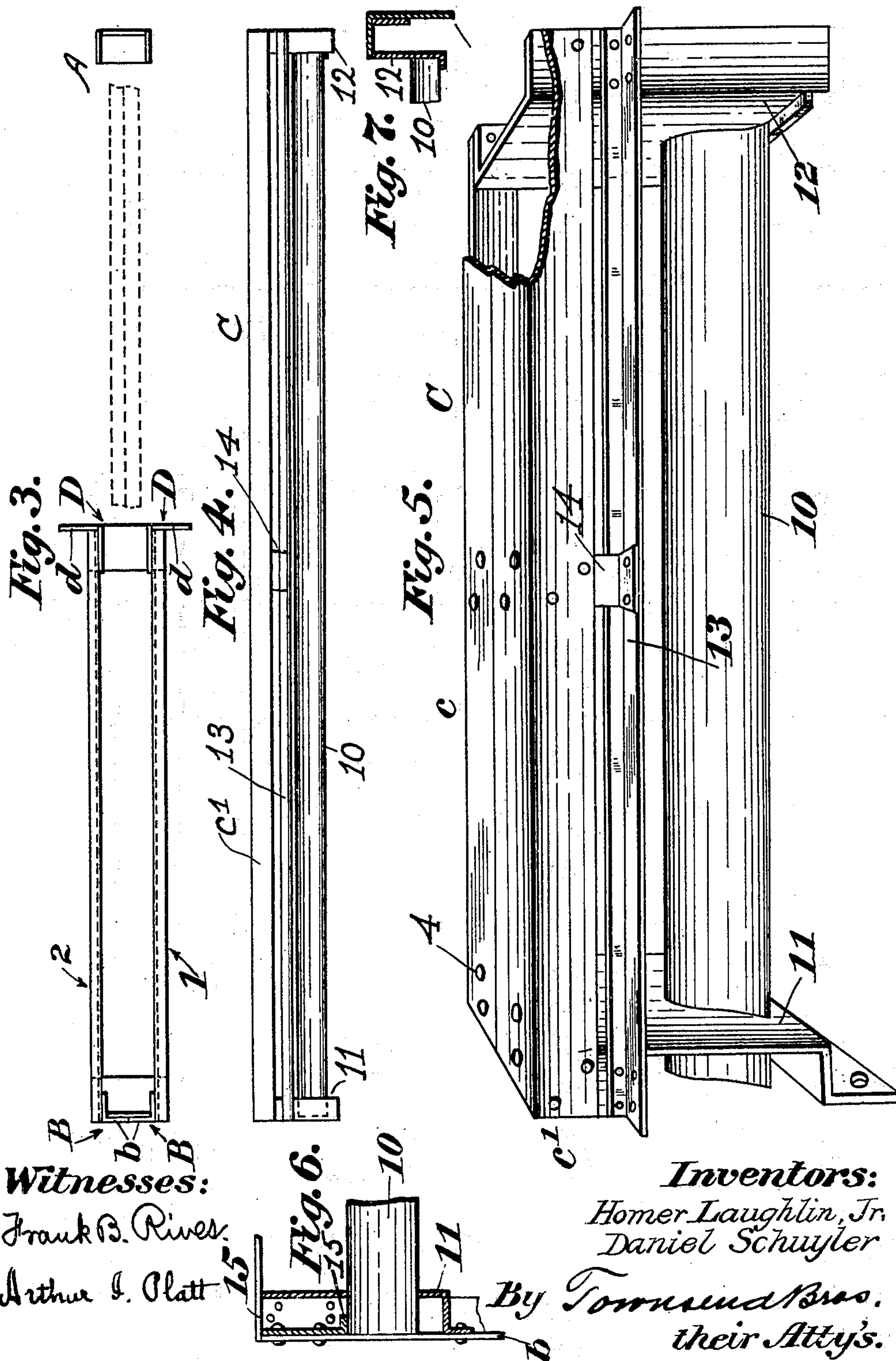
Inventors:
Homer Laughlin, Jr.
Daniel Schuyler.
By Torrens Bros.
their Atty's.

D. SCHUYLER & H. LAUGHLIN, JR.
METALLIC WALL POCKET STRUCTURE FOR SLIDING DOORS.
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2 SHEETS—SHEET 2.



Witnesses:

Frank B. Rives.

Arthur I. Platt

Inventors:

Homer Laughlin, Jr.
Daniel Schuyler

By *Townsend Bros.*
their Attys.

UNITED STATES PATENT OFFICE.

DANIEL SCHUYLER, OF BRIDGEPORT, CONNECTICUT, AND HOMER LAUGHLIN, JR., OF LOS ANGELES, CALIFORNIA, ASSIGNORS TO THE PERFECT SLIDING DOOR COMPANY, OF LOS ANGELES, CALIFORNIA, A CORPORATION OF CALIFORNIA.

METALLIC WALL-POCKET STRUCTURE FOR SLIDING DOORS.

No. 929,633.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed July 25, 1904. Serial No. 218,060.

To all whom it may concern:

Be it known that we, DANIEL SCHUYLER, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, and HOMER LAUGHLIN, Jr., a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Metallic Wall-Pocket Structure for Sliding Doors, of which the following is a specification.

An object of this invention is to provide for the industrial arts a new article of manufacture which may be produced in factories and there made ready for instalment in buildings to form walls of greater strength and rigidity at an increased economy and accuracy.

More particularly our invention consists in a new sliding door pocket and in new parts and combinations of parts by which the pockets for sliding doors in the walls of buildings may be constructed with greater economy of wall space and greater provision for door receiving space than has heretofore been possible with any form of structure for sliding door pockets. That is to say, we propose to provide comparatively wider door pockets in thinner walls than heretofore.

Another object is to provide a structure for sliding door pockets by which it is made possible to use narrower jambs and casings for the doors than can be used with any construction of sliding door pockets heretofore known.

An object of the invention is to produce a novel manufactured wall pocket the parts of which can be so accurately made in duplicate that they can readily be assembled with unfailing accuracy by unskilled workmen so that it becomes immaterial so far as accuracy of construction is concerned, whether the assembling is done at the factory or the parts are shipped in knockdown form and assembled at the place of use; often making great saving in freight charges.

This invention is applicable for improvements in wall structures for use in the per-

fect sliding door system, in which system door pocket structures have been made of wood in a factory in partly set-up form and transported to the places where they are to be used.

Various difficulties arise with former constructions of manufactured wall pockets for sliding doors, which our present invention is designed to avoid and some of which may be enumerated as follows, viz: It sometimes occurs that the former wall pockets will become warped out of accurate form either before or after installation in the building. Racking of the parts is apt to occur through flowing of the material at the points of fastening. There is also a liability through carelessness of the mechanic or through other causes, that the nails used in the former structure would sometimes become deflected and enter the cavity of the pocket thus interfering with the door and causing a trouble difficult to be remedied unless discovered before the structure is completed. Another difficulty arises from necessity of extreme accuracy in order to maintain the high perfection of installation consonant with said perfect sliding door system.

An object of our invention is to overcome these difficulties.

Another object is to make it possible to furnish an extensive trade through the United States and foreign countries with door pockets capable of fulfilling all of the requirements of said perfect sliding door system and in which all of the parts of one structure are interchangeable with any of the parts of all of the structures corresponding thereto, no matter how long they have been in stock.

Another object is to provide a fire-proof sliding door pocket that can be readily installed in fire-proof buildings having thin walls.

An object is to provide a novelty in wall structures which will enable the manufacturer, with definite minimum sized dies to produce parts for walls of various thicknesses.

By this invention the manufacturer and

dealer are enabled to provide and keep in stock assembled or knockdown wall skeletons of one size and style, which can quickly and readily be set up and used for constructing wall pockets of different thicknesses.

In order to accomplish the objects of our invention in the most practical way we furnish a horizontally and vertically ribbed sheet metal side for the sliding door pocket and the same may be supported at the back of the pocket by means of an upright of wood or other material. We preferably use for this purpose an upright made of angle iron and forming a part of the ribbed side. The invention may be variously embodied, and we do not propose to confine the same to any particular form of sheet metal construction; the main object in view being to provide a novel door pocket structure superior to all door pocket structures heretofore known in respect to combined accuracy, lightness, strength, compactness, stability, thinness of wall, incombustibility and indestructibility. This broad object we attain in great measure by constructing of metal the pocket mouth posts and their connections with the back post, and we attain it in greater measure by constructing the entire pocket structure of metal. The sheet metal may be wholly or in part, tubular, or other forms may be employed; but the form of pocket frame we at present deem preferable is constructed mainly of angle iron. By this construction a very thick body of cement on metallic lathing may be applied in a wall having a door space for a thick door, without making the wall undesirably thick.

By a sheet metal construction hereinafter described and shown in the drawings, each pocket side is a knockdown structure composed of nestable members so that if desired to ship it or store it in knockdown form, only minimum space will be required, thus making a great saving in transportation and storage. A skeleton form of frame is at present deemed most desirable, but we contemplate the use of pressed sheet metal sides instead thereof in cases where the same may be found practicable and desirable.

The accompanying drawings illustrate our invention in one of the forms in which it may be embodied.

Figure 1 is a broken perspective view of a wall structure embodying our invention assembled ready for installation in the wall. Portions are broken away for clearness of illustration; one side is shown in skeleton form and the other side partly plastered with cement or other suitable plastering material. Fig. 2 is a fragmental detail of a part of the upper left hand corner of Fig. 1. Fig. 3 is a plan of the wall structure and the post shown in Fig. 1; the truss header being omitted from the view. Dotted lines indicate a fragment of the rail which extends

across the door opening or passageway. Fig. 4 is a side elevation of the truss header in which said rail is mounted. Fig. 5 is a broken exaggerated perspective view of the truss header detached. Fig. 6 is a fragmental sectional detail of a portion of the truss header and back post. Fig. 7 is a fragmental sectional detail of parts at the top of the front post.

It is to be understood that any suitable fastenings and adjusting devices or supports for the free ends of the rail may be employed at the points for supporting the rail; but as the same form no part of this invention illustration thereof is omitted.

In the drawings, proportions have not been preserved as the manufacturer can adopt any proportions by him determined to be appropriate for the work to be supplied.

In a general way 1 and 2 designate two skeleton sheet metal side members or frames and 3 designates connecting members therefor and 4 means in the form of rivets for fastening said connecting members to the side members. Each of said skeleton side members or frames is composed of angle irons formed of sheet metal.

B is an angle iron upright having a flange or rib *b* turned inward to form a portion of the end wall of the pocket.

D is an angle iron upright having a flange or rib *d* extending outward to give thickness and strength to the post at the mouth of the pocket and forming a stop for the plaster and a support for the jamb, not shown, usually of wood. Other flanges or ribs *b'* and *d'* are arranged in a common plane and are fastened together by stays G formed of sheet metal angle iron one flange *g'* of each of which is fastened against the outward faces of the flanges or ribs *b'* and *d'* of the posts or uprights B, D, while the other flanges *g*, extend outward and receive and support the lathing 5, and plaster 6 and give strength to the structure. They also support the intermediate wall between the posts B and D.

7 designates wire or other fastening devices by which the lathing is fastened to the stays G. The lathing may be arranged projecting edgewise from the frame as shown in Fig. 1 for fastening the same to other parts of the building.

A designates the front or jamb post for the doorway desirably formed of two angle iron uprights 8 fastened together by connecting members 9 fastened by rivets 4.

C designates a header composed of sheet metal, and 10 a track rail mounted in brackets 11 and 12 which form the ends of the header.

13 designates angle iron stays for the header.

c and *c'* designate two crown pieces of angle iron forming the crown of the header.

14 is an intermediate upright, fastening the stays 13 to their crown pieces.

In practice the various parts will be manufactured in duplicates at the factory, the holes for the rivets or bolts being uniformly punched, and if desired the entire structure or the sides of the pocket portion and the header truss *c* may be assembled and fastened together at the factory; or the header may be manufactured and shipped detached from the other members of the structure and the structure be put together at the place where it is to be used. The side members formed of the parts B, D, and G, may be put together independently of the other parts and may, if desired, be provided with the lathing 5 and plaster 6 before being installed in the wall, or the lathing and plaster may be applied after the structure is erected.

In Fig. 1 we have shown one desirable method of constructing the side member 1. In this form there are four uprights to each pocket, the uprights B and D of each side member having their flanges reversibly arranged, the flange *b* of the back upright B of one side member extending inward to engage the like flange *b* of the back upright of the other side member, thus forming the back post; and each mouth post upright D has its flange *d* projecting outward; and the stays *g* are fastened in the recess between the flanges and ribs *d* and *d'* which afford the supports for the facing of the wood trimmings of the doorway. By the construction shown it becomes possible to trim the doorways with very narrow casing, thus enabling the constructor to use valuable hard wood for finishing at a minimum cost. The very thin flanges or ribs *d* allow the plaster to come close to the opening of the door and the joints between the plaster and the posts are thus readily covered by narrow casings. Where special strength is desired the same may be secured by using cement plaster on metallic lathing between the uprights and the same may be made full thickness of the width of the flanges *d*. We prefer to use skeleton frames supported as shown; but other ribbed sheet metal construction may be substituted. It is obvious that any desired strength may be obtained by using appropriate thickness of stock.

The rail 10 may be given a cantaliver support at the top of the back end of the pocket by the bracket 11 through which it may be inserted, and the connecting member 15, beneath which the end of the rail will come when the parts are together; so that when the other end of the rail is brought down to rest on the bracket 12 there will be an internal strain in the rail to increase its rigidity. The flanges or ribs of the header stays 13 and the topmost pocket stays G may be fastened together by stove bolts or rivets

a sheet metal header is free from danger of being displaced or disturbed by changes of the atmosphere.

By the construction and arrangement of the posts A and D, the application of the supports for the stops and casing (not shown) of the door openings is provided for so as to give greater effective strength and rigidity to the same than is possible in any wall pocket door structure heretofore known; the internal angles of said posts being so disposed as to receive timber (not shown) to which the stops and casing may be fastened.

What we claim and desire to secure by Letters Patent of the United States is:

1. A part for a sliding door pocket comprising stays and two flanged uprights connected by said stays and having their flanges reversely arranged relative to the stays substantially as and for the purpose set forth.

2. A new part for one side of a sliding door pocket consisting in a sheet metal skeleton frame provided with a flanged sheet metal upright for the open edge of said pocket.

3. A part for one side of a sliding door pocket comprising a sheet metal skeleton frame and metal lathing secured thereto and projecting edgewise therefrom.

4. A door pocket structure constructed of four sheet metal uprights, means fastening two of such uprights together at one edge of the pocket, stays fastened at one end to one of said uprights and at the other end to one of the other uprights in the inside of the angle thereof, other stays fastened at one end to the other of the uprights and at the other end to the other upright in the inside of the angle thereof.

5. In a sliding door pocket a side structure comprising two sheet metal uprights connected together, one of which has a flange projecting outward from the pocket.

6. A sheet metal side for a wall pocket provided with an outwardly extending flange at the mouth of the pocket.

7. A sheet metal structure for wall pockets comprising a back post, a mouth post, a jamb and a sheet metal header having end pieces, forming rail brackets, a rail supported thereby, and flanged stays connecting said end pieces.

8. A wall pocket door structure having a mouth post composed of an angle iron upright one flange of which extends crosswise of the doorway and the other lengthwise of the pocket, the inner angle being thus disposed so as to receive therein the timbers for sustaining the casings which are to be applied as finish over the edge of the plastering on the side wall of the pocket.

9. A wall pocket door structure having a sheet metal post for one side of the door opening, said post having a channel pre-

4. The trolley rail 10 being mounted inside

sented toward the door opening so that a timber may be inserted into said channel for stiffening the post and for supporting the jamb and other parts of the door casing.

- 5 10. A wall pocket door structure having at the sides of the door opening angle up-rights formed of sheet metal having the inner angles thereof disposed to receive timbers for supporting the door casing.

- 10 In testimony whereof we have respectively signed this specification in the presence of subscribing witnesses at the places and dates set opposite our names.

At Bridgeport, Connecticut, July 9, 1904.

DANIEL SCHUYLER.

Witnesses:

JAMES R. TOWNSEND,

ELIZABETH LEONARD.

At Los Angeles, California, July 19, 1904.

HOMER LAUGHLIN, JR.

Witnesses:

E. IRENE CUMMINGS,

O. H. HUBBARD.