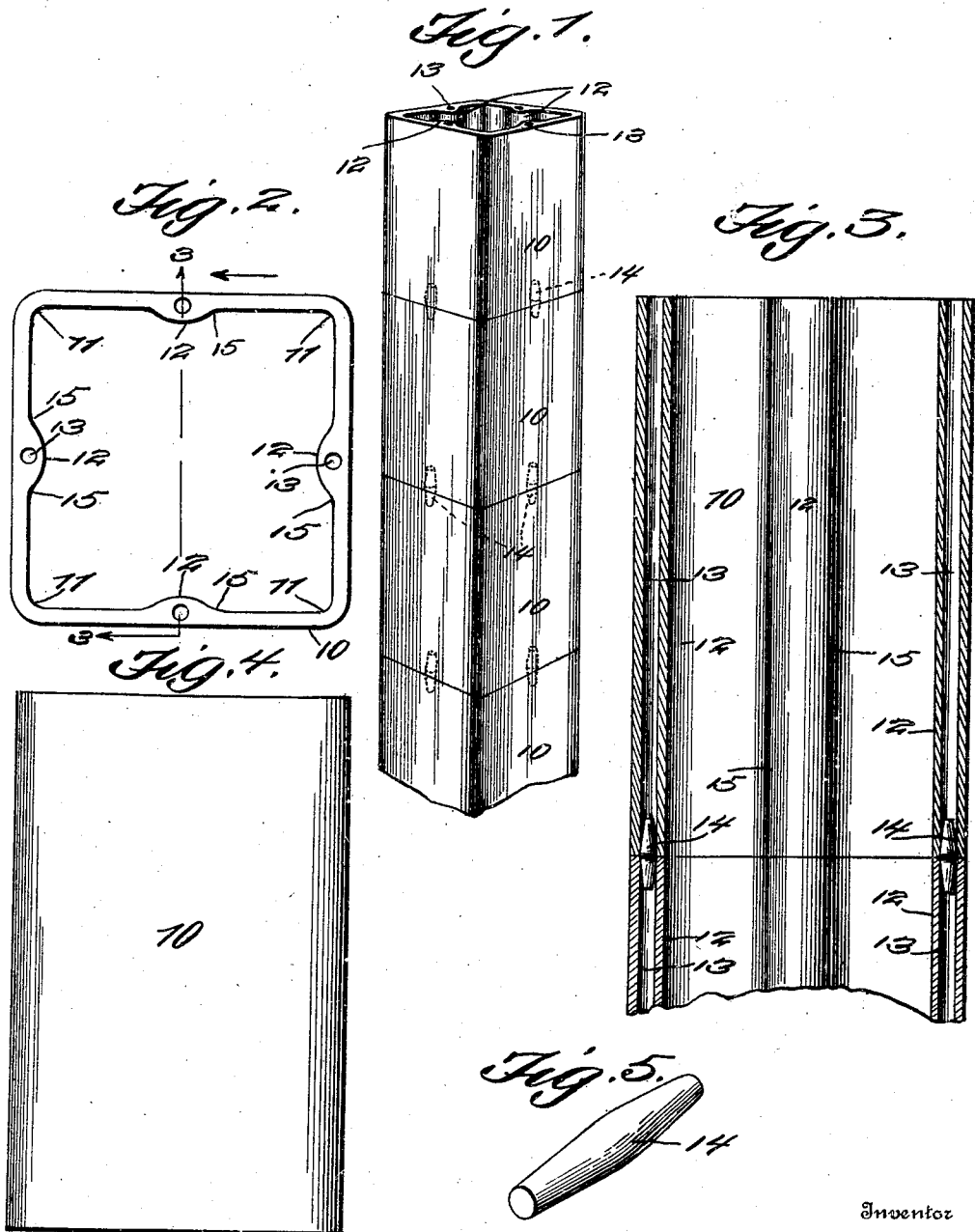


S. B. GOUCHER.
SECTIONAL SMOKE FLUE.
APPLICATION FILED MAY 1, 1909.

938,140.

Patented Oct. 26, 1909.



Witnesses

R. B. Powell.
M. M. Miller.

Inventor

Samuel B. Goucher.

By

Alfred T. Sage

Attorney

UNITED STATES PATENT OFFICE.

SAMUEL B. GOUCHER, OF TORONTO, OHIO.

SECTIONAL SMOKE-FLUE.

938,140.

Specification of Letters Patent.

Patented Oct. 26, 1909.

Application filed May 1, 1909. Serial No. 493,285.

To all whom it may concern:

Be it known that I, SAMUEL B. GOUCHER, a citizen of the United States, residing at Toronto, county of Jefferson, State of Ohio, have invented certain new and useful Improvements in Sectional Smoke-Flues, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a sectional smoke flue and particularly to a structure adapted to form a continuous chimney or flue lining.

The invention has for an object to provide a flue section free from all projections upon its outer periphery and ends and having interior extensions to receive connecting pins to form a continuous chimney or flue and to strengthen and brace each of the sections without interfering with the circular movement of the heated air or products of combustion in rising through the flue.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawing—Figure 1 is a perspective showing the application of the invention; Fig. 2 is a top plan; Fig. 3 is a vertical section on line 3—3 of Fig. 2; Fig. 4 is a side elevation; and Fig. 5 is a detail of the connecting pin.

Like numerals of reference refer to like parts in the several figures of the drawing.

The numeral 10 designates a flue section which may be of any desired construction and configuration, it being preferably formed of fire clay and of rectangular cross section as shown. This body section is free from all projections both upon its outer periphery and ends and is therefore not liable to injury in storage, transportation or handling. Owing to the circular movement of heated smoke or other products of combustion in rising through a chimney the corners are preferably rounded as shown at 11 so as to offer the minimum resistance to a free draft. Each of the walls is provided intermediate of the corners with interiorly extending extensions or ribs 12 formed integral with the body and traversing the length thereof between the open ends. Each of these extensions is provided with an aperture or hole 13 therethrough adapted to receive a connecting or dowel pin 14 for securing the sections together to form a continuous stack. This pin may be of any desired form, such

as tapering as shown in Fig. 5 so as to wedge in the apertures of the extensions. These extensions are curved upon the inner face of the section and merge into the walls thereof as shown at 15 so as to offer practically no obstruction or resistance to the free circular movement of the products of combustion. Any desired number of the extensions may be used as are found necessary to properly strengthen the sections and form a rigid connection between them for the production of a continuous chimney or flue. This structure permits the formation of the flue sections by a single pressing operation and obviates all hand work thereon, and does not materially increase the weight of the section which is an important item in transportation. The sections have a smooth exterior and ends so that they can be closely packed and this absence of projection prevents breakage or injury to the connecting members. The extensions add the necessary thickness of material to receive the aperture and also stiffen and strengthen the section so that it is not liable to injury during the drying or burning operation and when the sections are in use prevent cracking or breaking. The extensions are disposed so as not to offer any resistance to a free draft and do not collect and hold dirt or soot. It will therefore be seen that the invention presents a simple, efficient and economically manufactured flue of any desired shape in cross section.

Having described my invention and set forth its merits what I claim and desire to secure by Letters Patent is—

1. A sectional smoke flue comprising a hollow body having upon its inner face projections extending longitudinally thereof and provided with curved outer surfaces thereby increasing the thickness of the wall to receive an aperture in the thickened portion thereof.

2. A sectional smoke flue comprising a hollow body having projections upon its inner face having curved outer surfaces merging into the face of the wall of the body thereby increasing the thickness of said wall to receive an aperture in the thickened portion thereof.

3. A sectional smoke flue comprising a hollow body having upon its inner face projections extending longitudinally thereof and provided with curved outer surfaces merging into the face of the wall of the body

and provided with an aperture to receive a connecting device.

4. A smoke flue composed of a plurality of superposed sections each comprising a hollow body having the walls thereof formed with portions of increased thickness extending longitudinally within the flue and provided with apertures, and oppositely

tapering connecting pins disposed in the apertures of contacting sections.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL B. GOUCHER.

Witnesses:

MARIA TRUBY,
W. J. WHITE.