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TEMPLET

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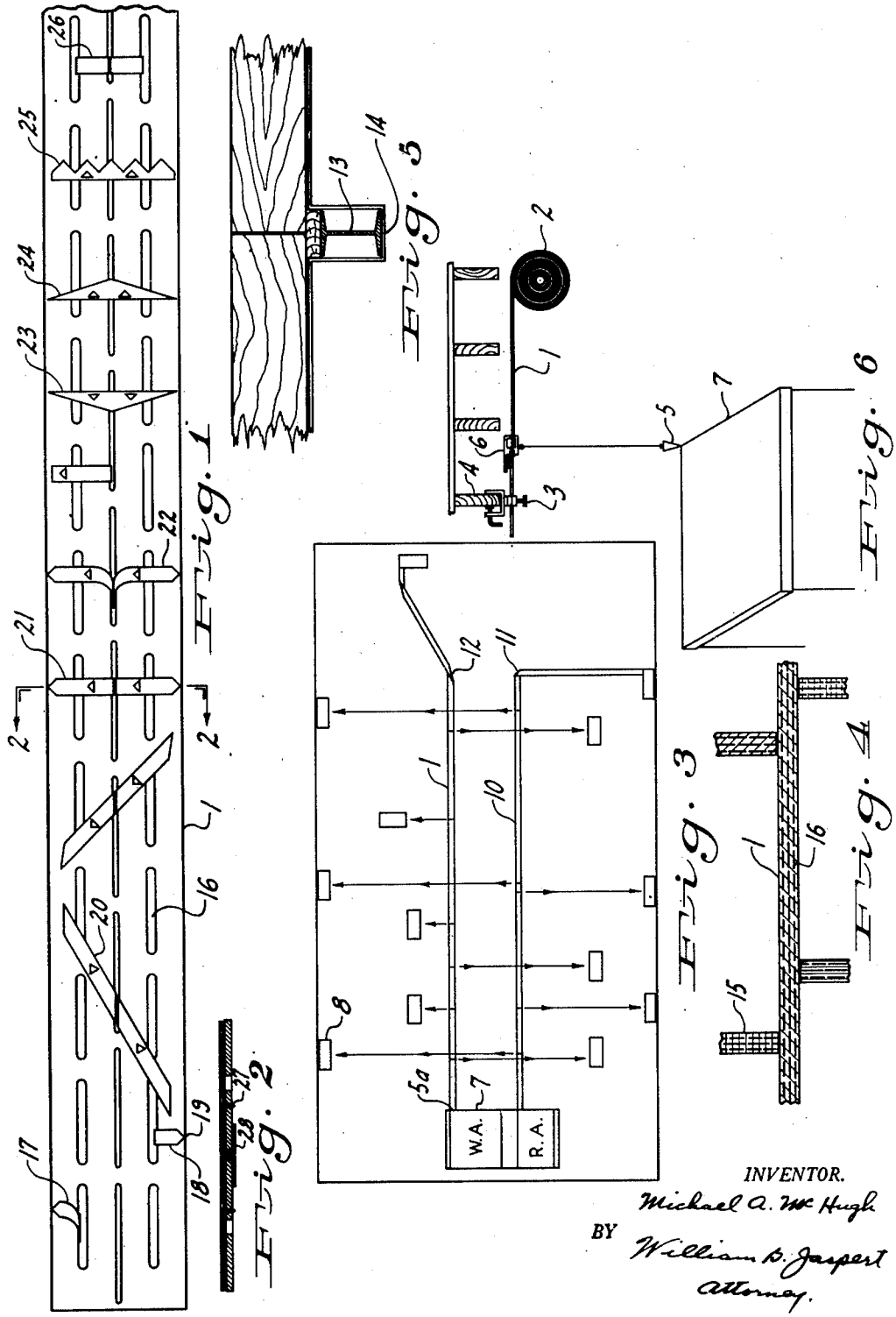


Fig. 1

Fig. 2

Fig. 5

Fig. 6

Fig. 3

Fig. 4

INVENTOR.
Michael A. McHugh
BY
William B. Jaspert
Attorney.

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TEMPLET

Michael A. McHugh, Pittsburgh, Pa.

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2 Claims. (Cl. 33—174)

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This invention relates to new and useful improvements in templets, more particularly templets of an endless tape form which is especially useful in making air ducts or conduits for air conditioning or house heating purposes.

It is among the objects of the invention to provide a templet and markings therefor, whereby the length and branches of hot air ducts and return air lines may be measured in a building at the exact point of application with all branch lines indicated on the measuring templet and which may then be employed for laying out and fabricating the conduits or ducts on a workbench at the point of manufacture.

The invention will become more apparent from a consideration of the accompanying drawing, constituting a part hereof, in which like reference characters designate like parts, and in which:

Fig. 1 is a top plan view of a portion of an endless tape templet embodying the principles of this invention;

Fig. 2 a cross sectional view taken along the line 2—2, Fig. 1;

Fig. 3 a diagrammatic view showing a plan of a hot air heating system with inlets and outlets with the templets applied thereto;

Fig. 4 a diagrammatic view showing the application of colored templets;

Fig. 5 a cross-sectional view showing the use of the templet around a beam when laid against the joist; and

Fig. 6 a view in perspective of a hot air furnace showing the joists of a ceiling in cross section and the manner of anchoring the templet thereto.

With reference to Fig. 6 of the drawing, the templet designated by the numeral 1 in the form of a coil 2 is attached at one end by a clamp 3 to a joist 4 of a ceiling in a cellar as utility room. The templet 1 is centered by a plumb 5 with the end of the furnace, from which the main warm air trunk leads to the dwelling, the plumb being secured to the templet by a clamp 6. The point at which the plumb 5 is aligned with the furnace, designated by the numeral 7, is indicated at 5a in Fig. 3 of the drawing. The templet 1 is uncoiled and stretched across the basement of the dwelling and is properly marked at the points designated by the arrows to indicate branch lines for connection to vertical air ducts designated by the numeral 8. The numeral 10 designates a tape-type templet for a return air trunk line and is also marked at the points designated by the arrows and lines for the exhaust

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passages from the various rooms of a dwelling. The return air trunk line 10 may be of a different colored tape than the main warm air trunk line 1 so that they are readily distinguishable by the workmen when they are brought to the factory or place of manufacture of the ducts or air lines.

Where the ends of the trunk lines are formed at an angle, the tape may be bent as shown at 11, Fig. 3, which is at right angles, or it may be bent as shown at 12, Fig. 3, at an angle less than a right angle, as, for example, in avoiding obstructions.

The templets may be marked at the points designated by the arrows in any suitable manner to designate the kind of a branch that is taken from the trunk line or the kind of obstruction that the tape goes over, as, for example, the beam 13, Fig. 5. In the latter case the tape may be designated in the center of the beam as indicated by the numeral 14, to be a 6 x 6 beam. Also the trunk lines may be indicated by attaching templets or straps of different colored material, such as the straps 15, Fig. 4, to the main trunk line as the line 1, which is of a different color.

For convenience the tape may be provided with perforations or slots 16, Fig. 1, in which may be mounted indicators, such as the indicator 17, which may be of plastic or metal and may be bent as shown to designate a sweeping turn for the branch line. Similarly the indicator 18 shows a square turn by the branch line, the pointers 19 of the indicators being the center location of the branch on the main trunk line 1 which is represented by the tape 1. Thus, for example, the marker 20, Fig. 1, may be used to designate an angle for the trunk line which, however, may also be indicated by bending the tape itself as shown in Fig. 3. The marker 21, Fig. 1, designates trunk lines taking off at right angles or with a square turn; whereas the indicators 22 designate trunk lines taking off with sweeping turns. Symbols, such as those designated by numerals 23 and 24, may be secured to the templet to indicate obstructions between the markers such as beams, pipes, etc., and the symbol 25 may designate the end of the trunk or branch lines, and the symbol 26 may be used to designate change of dimension of width or depth of the trunk or branch lines.

The markers 20, etc. may be provided with upstruck portions 27, Fig. 2, which can be pressed into the templet, which is preferably a fiber strip, and are thereby locked in place. Also the markers 20 may be folded over to form flanges 28, Fig.

2, by projecting the markers through the center slots or the slots nearest the edge and turning them over as shown in Fig. 2.

When a workman has marked the endless tape templet with the use of symbols or in any other suitable manner as shown in Fig. 1 of the drawing, the templet is recoiled to form a compact package easily transportable and which protects the templet symbols or markings while being transported to the factory where the trunk and branch lines are to be fabricated.

The workman who uses the templet in making up the trunk and branch lines from sheet metal or other material clamps the end of the templet somewhat in the manner shown in Fig. 6 and begins to construct the metal conduits in lengths and with branches as called for by the markings on the templet as it is uncoiled. The ducts may, of course, be made in sections and shipped to the point of use where they are assembled by again holding the templet as it is mounted in the manner shown in Fig. 6 and uncoiled and extended through the basement along the ceiling. In this manner no sketches or drawings need be made of the lay-out and no measurements need be taken. There is therefore a complete avoidance of error in the manufacture and mounting of the air ducts and branches when they are made or brought in for assembly in the basement of a dwelling.

Although the templet has been illustrated and described as particularly useful for measuring, constructing and mounting air ducts for heating or air conditioning systems, it will be obvious to those skilled in the art that many uses may be found for such a templet.

While the templet is preferably made of a fibrous material of substantial thickness, it may obviously be made of metal or other light weight material. Even when made of a fibrous or paper base material, it is of substantial strength in that it is made several inches in width and of a thickness to permit rather rough handling without breaking or marring of the templet.

Although one embodiment of the invention has been herein illustrated and described, it will be apparent to those skilled in the art that various modifications may be made in the details of construction without departing from the principles herein set forth.

I claim:

1. A templet for laying out trunk air lines for heating systems in dwellings and the like comprising a relatively long strip of substantial width adapted to be coiled, said strip having rows of longitudinally extending transversely spaced slots for receiving markers, and markers on said strip of different shapes and sizes having means for attaching to the slots in said strip, said markers being arranged on said strip to designate the points of connection of the branch lines to the trunk line and the shape to take off of the branch lines from the trunk line.

2. A templet for measuring the size and branches of trunk airlines and for fabricating the same comprising a relatively long strip of tape material of substantial width adapted to be anchored at one end and extended throughout the length of a basement or dwelling, one end being connected at the point of the heat or air source and the other end being extended throughout the length of the room, and markers for designating the points of connection of the branch lines to the trunk and the shape and take-off of the branch lines from the trunk line, said strip having parallel rows of slots with the slots in alternate rows overlapping and said markers having attaching means for fastening to the slots of the strip.

MICHAEL A. McHUGH.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
464,205	Swope	Dec. 1, 1891
944,462	Osborne, Jr.	Dec. 28, 1909
1,080,448	Honey	Dec. 2, 1913
1,145,244	Hoffman	July 6, 1915
1,519,965	Movhonnessian	Dec. 16, 1924
1,843,858	Zoll	Feb. 2, 1932
1,965,216	Brown	July 3, 1934
1,974,085	Shields	Sept. 18, 1934
2,060,165	Borieske	Nov. 10, 1936
2,187,087	Leary	Jan. 16, 1940

FOREIGN PATENTS

Number	Country	Date
11,213	Great Britain	1885