(No Model.)

N. U. WALKER.

SECTIONAL PIPE.

No. 261,191. Patented July 18, 1882.

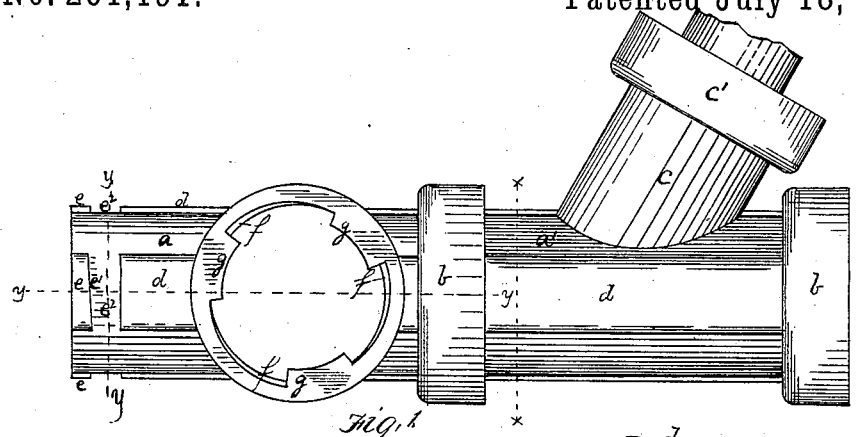

Fig. 1.

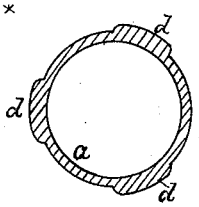

Fig. 2.

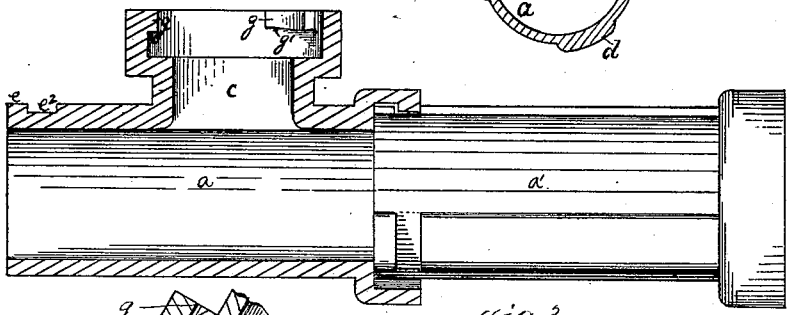

Fig. 3.

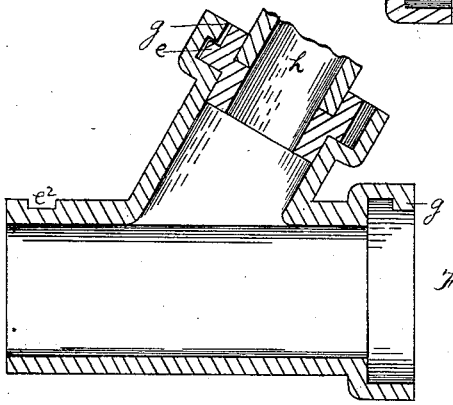

Fig. 4.

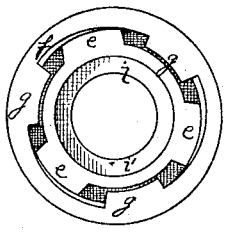

Fig. 5.

Witnesses

R. W. Marshall

M. B. Lowrie

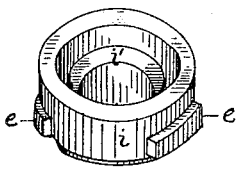

Fig. 6.

Inventor

Nathan U. Walker

by his attys

Bakewell & Kerr

UNITED STATES PATENT OFFICE.

NATHAN U. WALKER, OF WALKER'S P. O., OHIO.

SECTIONAL PIPE.

SPECIFICATION forming part of Letters Patent No. 261,191, dated July 18, 1882.

Application filed February 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, NATHAN U. WALKER, of Walker's P. O., in the county of Columbiana and State of Ohio, have invented a new and useful Improvement in Sectional Pipe; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to the construction of sectional pipes and their joints; and it consists in forming on the external side of the small end of the pipe lugs or wedges which take under projecting lips on the inner side of the socket of the adjoining pipe; also, in making such sockets with inclined surfaces between the projecting lips, so as to center the bore of the pipe, which is secured in place by the lips and projections; also, in the construction of a reducer to be placed in the socket of the pipe or in a similar socket in the branch of the pipe for the purpose of reducing the bore of the pipe or its branch to any desired size.

To enable others skilled in the art to make and use my invention, I will now describe it by reference to the accompanying drawings, in which—

Figure 1 is a side view of two sections of pipe put together, and each provided with a branch. Fig. 2 is a cross-section on the line *x x*, Fig. 1. Fig. 3 is a view of two sections of pipe put together, one of them being in section. Fig. 4 is a longitudinal sectional view of a section of the pipe having a branch, and provided with the reducer in position in the socket of the branch. Fig. 5 is an end view of the branch socket, showing the reducer in the position it occupies when placed in the bowl. Fig. 6 is a perspective view of the reducer.

Like letters of reference indicate like parts in each.

The sections *a a'* are formed with external strengthening-ribs *d*, such as are described and claimed in another application of even date herewith, and with a bowl or socket, *b*. On the smaller end of the sections I form two or more locking-lugs, *e*, which preferably have an inclined side surface, *e'*, said lugs being formed by cutting the strengthening-ribs *d* away, as at e^2. On the inner side of the bowl *b* are projecting locking lugs or lips *g*, in number corresponding to the number of lugs *e* on the small end of the pipe-section. The under surfaces or sides of the lugs *g* are preferably inclined, as at *g'*, correspondingly with the inclined side of the lug *e*, so that when the smaller end of one of the sections is inserted into the socket or bowl of another section the lugs or wedges *e* may be turned under the inclined lips *g* and the two sections securely locked thereby. In order to center the sections with each other for the purpose of bringing their respective bores in line, I make the inner surfaces of the sockets *b*, which intervene between the lips *g*, inclined, as shown at *f*, so that when the entering section is inserted into the sockets and turned the lugs *e*, coming against the inclines *f*, force the entering pipe to the center of the bowl. This last feature of construction is claimed in the before-mentioned application of even date herewith.

If desired, the pipe described may be made without the ribs *d*.

Wherever desired a section may be provided with a branch, *c*, having a socket, *c'*, which is similar in construction to the socket *b*, before described. If it is desired to reduce the size of the main pipe *a* or the branch pipe *c*, so as to connect the same with a smaller pipe, *h*, it can be done by the use of a reducer, *i*. (Shown in Fig. 6.) The external surface of this reducer is similar to the small end of the pipe *a* if cut off at the line *y y*, Fig. 1. The inner surface of the reducer may be formed either with a plain socket, *i'*, as shown in Fig. 6, or a socket similar to the socket *b* in internal construction. The reducer *i* is inserted into the socket of the pipe by dropping it in, in the position shown in Fig. 5, and then turning until its lugs *e* take under the lips *g*, as shown in Fig. 4. It is thereby securely fastened in place and ready for the reception of the smaller pipe, *h*. These branch pipes *c* may be made at any desired place in the line of the pipe, and may be fitted by the use of the reducer *i* to receive branch pipes of various sizes, it being necessary only to make the opening of the reducer of a size corresponding to that of the desired branch pipe. In the use of these pipes cement is placed in the bowls or sockets at each joint for the purpose of making the joint tight in the usual way.

By my invention I save the necessity of cutting holes of varying sizes in the pipes, and

am enabled to make a much more perfect joint at very much less expense and trouble.

The pipe may be made of clay, composition, cement, iron, or any desired material.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A socketed pipe-section having overlapping locking lugs or lips upon its inner side, and curved inclines extending between the locking lugs or lips, in combination with an entering section having projecting locking lugs, substantially as and for the purposes described.

2. A socketed pipe section or branch having locking lugs or lips on the inner side of the socket, in combination with a reducing-piece having locking-lugs on its outer side to take under the lugs or lips in the socketed piece, substantially as and for the purposes described.

3. A reducing-piece having lugs on its external surface designed for taking under projecting lips on the interior of the socket of the pipe, and provided with a central bore and socket, substantially as and for the purposes described.

In testimony whereof I have hereunto set my hand this 14th day of February, A. D. 1882.

NATHAN U. WALKER.

Witnesses:
T. B. KERR,
JAMES H. PORTE.