J. E. MOODY.

MEANS FOR FORMING CONCRETE PIPE SECTIONS.

APPLICATION FILED JULY 21, 1919.

1,376,349. Patented Apr. 26, 1921.

Fig. 1

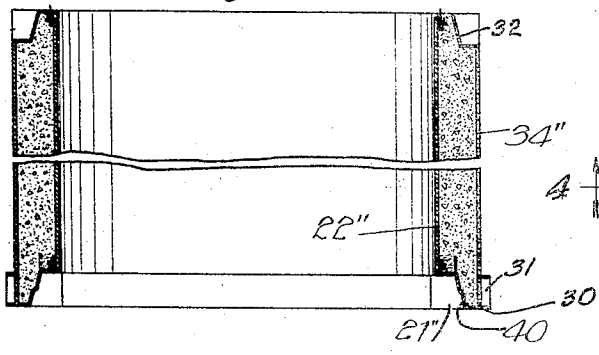


Fig. 2

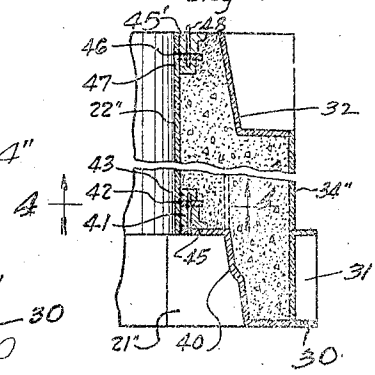


Fig. 3

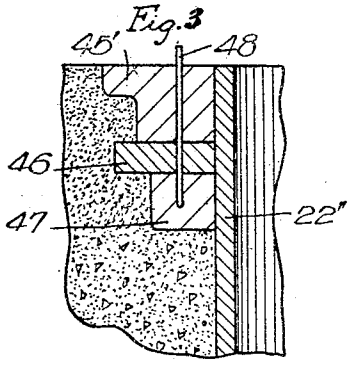
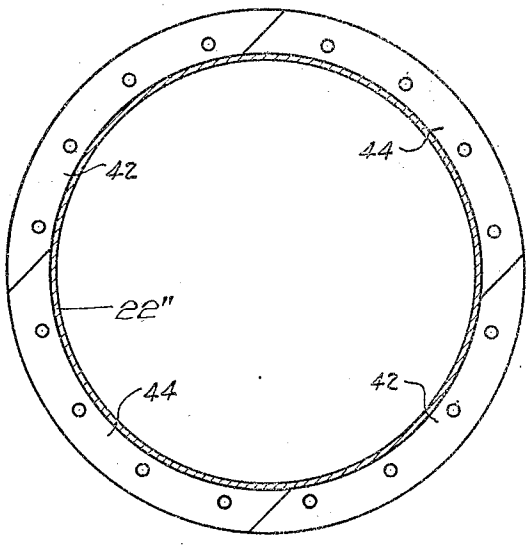


Fig. 4



Inventor
Joseph E. Moody
Williams Bradbury See
Attys.

UNITED STATES PATENT OFFICE.

JOSEPH E. MOODY, OF CHICAGO, ILLINOIS.

MEANS FOR FORMING CONCRETE-PIPE SECTIONS.

1,376,349. Specification of Letters Patent. Patented Apr. 26, 1921.

Application filed July 21, 1919. Serial No. 312,363.

To all whom it may concern:

Be it known that I, JOSEPH E. MOODY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Means for Forming Concrete-Pipe Sections, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to improvements in means for forming concrete pipe sections, and is particularly concerned with means for forming the pipe sections described and claimed in my copending applications Serial Nos. 312,361 and 312,362 filed July 21st, 1919.

The objects of my invention are:

First: to provide means for forming concrete pipe sections such as those disclosed in my above mentioned applications, which permit the pipe sections to be manufactured easily and quickly;

Second: to provide means of the above character which will insure the ends of adjacent pipe sections fitting accurately.

Other objects will appear as this description progresses, reference being had to the accompanying drawing, in which—

Figure 1 is a central longitudinal section of my improved means for forming pipe sections;

Fig. 2 is a fragmentary sectional view showing the details of the construction shown in Fig. 1, on an enlarged scale;

Fig. 3 is a fragmentary sectional view showing certain details of the construction illustrated in Fig. 2, on a still larger scale; and

Fig. 4 is a transverse section taken upon line 4—4 of Fig. 2.

Throughout the several views similar reference characters will be used to designate similar parts.

As stated above, one of the objects of my invention is to provide means for forming concrete pipe sections such as those disclosed in my applications above referred to. In certain of the embodiments disclosed in these applications lead rings or bands are molded into the inner walls of the pipe sections for the purpose of providing means for attaching the edges of a lead band to the ends of adjacent pipe sections in fluid tight relation, the lead bands spanning the joint between the adjacent pipe sections and rendering the joint fluid tight.

Referring to the drawing, my improved means comprises an inner base ring, which is formed of what for the purpose of convenience will be termed an outer ring 40, and a plurality of inner rings 41, 42 and 43 respectively. These various rings are of different diameters, the function of the inner ring 42 being to provide a groove into which the edge of the sealing band or strip may be calked. To facilitate the removal of the inner rings 41, 42 and 43 from the formed pipe section, I provide each of them with master sections. These are illustrated only in connection with the ring 42 and are shown at 44, in Fig. 4. The rings 41 and 43 may be similarly divided, and in order to hold the sections of these rings in their proper positions I provide pins 45, which are secured to the outer ring 40 and extend through registering holes in the rings 41, 42 and 43. The base ring 40 is provided with reinforcing ribs 21″, upon the upper edges of which rests the inner cylindrical form 22″. The inner head ring comprises an outer ring 45′ and the two inner rings 46 and 47, which may be formed with master sections similar to those described in connection with the inner ring 42 of the base ring, these sections being held together by means of pins 48 insertible and withdrawable through suitable openings in the ring 45′ registering with corresponding openings in the rings 46 and 47. At 30 is indicated a channel-shaped base ring having reinforcing radially extending ribs 31. The ring 30 supports an outer cylindrical form 34″ on top of which a head ring 32 is arranged to rest. The head ring 32 may be suitably conformed to provide a tapered extension to fit into the counter-bore formed by the base ring.

While I have illustrated and described the details of a preferred embodiment of my invention, it is to be clearly understood that my invention is not to be limited to these details, but is capable of other adaptations and modifications within the scope of the appended claims.

Having thus described my invention, what I claim is:

1. Means for forming concrete pipe sections comprising inner and outer forms, said inner form comprising base and head rings, each of which are formed of inner

and outer rings of different diameters, some of said inner rings being formed with master sections, pins extending through said outer rings and into said inner rings, to hold said master sections in place, and a cylindrical form extending between said base and head rings, the said cylindrical form resting upon a portion of said base ring and centering said head ring, said outer form comprising a base ring, an outer cylindrical form resting upon said base ring and a head ring centered by said outer cylindrical form.

2. Means for forming concrete pipe sections comprising inner and outer forms, said inner form comprising base and head rings, each of which are formed of inner and outer rings of different diameters, some of said inner rings being formed with master sections, pins extending through said outer rings and into said inner rings, to hold said master sections in place, and a cylindrical form extending between said base and head rings, said outer form comprising a base ring, an outer cylindrical form resting upon said base ring and a head ring centered by said outer cylindrical form.

3. Means for forming concrete pipe sections comprising inner and outer forms, said inner form comprising base and head rings, each of which are formed of inner and outer rings of different diameters, some of said inner rings being formed with master sections, pins extending through said outer rings and into said inner rings, to hold said master sections in place, and a cylindrical form extending between said base and head rings, said outer form comprising a base ring and an outer cylindrical form.

4. Means for forming concrete pipe sections comprising inner and outer forms, said inner form comprising base and head rings, each of which are formed of inner and outer rings of different diameters, some of said inner rings being formed with master sections and a cylindrical form extending between said base and head rings, said outer form comprising a base ring and an outer cylindrical form.

5. Means for forming concrete pipe sections comprising a form having base and head rings, each of which are formed of inner and outer rings of different diameters, some of said inner rings being formed with master sections, pins extending through said outer rings and into said inner rings to hold said master sections in place, and a cylindrical form extending between said base and head rings, the said cylindrical form resting upon a portion of said base ring and centering said head ring.

6. Means for forming concrete pipe sections comprising a form having base and head rings, each of which are formed of inner and outer rings of different diameters, some of said inner rings being formed with master sections, pins extending through said outer rings and into said inner rings to hold said master sections in place, and a cylindrical form extending between said base and head rings.

7. Means for forming concrete pipe sections comprising a form having base and head rings, each of which are formed of inner and outer rings of different diameters, some of said inner rings being formed with master sections, and a cylindrical form extending between said base and head rings.

8. Means for forming concrete pipe sections comprising a form having rings formed of different diameters, some of said rings comprising sections removable transversely of said form.

9. Means for forming concrete pipe sections comprising a form and means for forming grooves in the wall of the pipe sections comprising rings, said rings having sections removable transversely of said form.

In witness whereof, I hereunto subscribe my name this 14th day of June, 1919.

JOSEPH E. MOODY.

Witnesses:

EARL C. ALEXANDER,

EARL F. PIERCE.