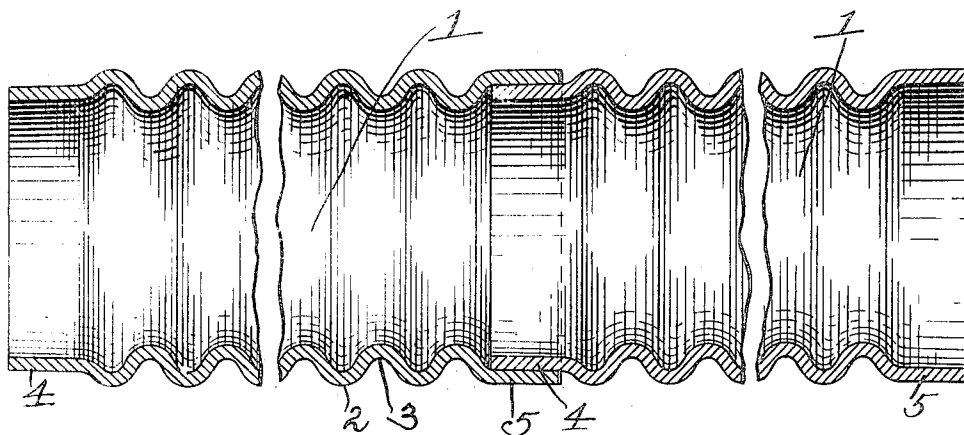


L. SCHNUEERER.
CULVERT.

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942,466.

Patented Dec. 7, 1909.



Witnesses:

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UNITED STATES PATENT OFFICE.

LOUIS SCHNUERER, OF ELYRIA, OHIO.

CULVERT.

942,466.

Specification of Letters Patent.

Patented Dec. 7, 1909.

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To all whom it may concern:

Be it known that I, LOUIS SCHNUERER, a citizen of the United States, residing at Elyria, in the county of Lorain and State of Ohio, have invented certain new and useful Improvements in Culverts, of which the following is a specification.

In pipe culverts generally where ordinary pipe sections are used and they are connected together by a bell structure it is necessary to either dig out a small trench under the bell or else to permit the bell to rest on the solid earth and fill in around, this necessarily leaves a space or if not a space then loose earth directly beneath the culvert, whereby a great deal of settling is permitted to the culvert or a space is left for the collection of water or for a stream to work through and cause damage. In other structures of culverts where corrugated pipe sections are used it is customary to either make the joints by riveting the sections together or by lapping the sections, the former of which is very difficult in small culverts and the latter is practically impossible in cast iron corrugated culverts.

In the present case the applicant has endeavored to produce a cast iron culvert wherein the sections are connected in a manner such that the disadvantages above mentioned are all overcome.

This invention therefore relates to improvements in pipes used for culverts and the like and contemplates specifically certain connections which used in conjunction with the peculiar form of pipe serve as a continuous culvert which is prevented from coming apart at the joints.

This invention may be further briefly summarized as consisting in the construction and combination of parts hereinafter set forth in the drawings, specification and claims.

Referring to the drawings the figure represents a culvert composed of a pipe constructed according to my invention.

Any preferred form of pipe sections may be used in the carrying out of my invention so long as they have annular ribs or shoulders,

but I prefer to use as shown in the drawings cast iron pipe 1 having annular curved corrugations 2 which form annular recesses 3 adapted to receive earth or other material which is packed about the pipe sections to prevent the same from moving endwise. One end of each section is provided with a tapering sleeve portion 4 which is smaller at the mouth than at the beginning of the taper and is adapted to slide into and fit nicely in an outwardly tapering sleeve or bell 5 on the opposite end of the next pipe sections.

It will be seen that when the tapering sleeve 4 is moved into the tapering sleeve 5 a nice fit will be made which will form a suitable connection between the pipe sections and after they have been laid and earth or other substance has been compacted about them annular shoulders of earth, so to speak, will be formed in the recesses 3 of the pipe sections and they will be prevented from moving endwise one with respect to the other, thus forming a continuous culvert, and the sections will remain connected one with respect to the other without being displaced by any longitudinal movements.

The two sleeves forming the joint no greater in diameter than that of the outside of the corrugations 2, whereby in the laying of the pipe the bottom of the ditch may be made flat and the corrugations may rest solidly upon the earth which has not been excavated, thus preventing in a large measure the settling of or the formation of an open space beneath the culvert.

Having described my invention, I claim:

1. A culvert comprising a plurality of corrugated pipe sections having tapered sleeve connections between their ends, said sleeve connections being of no greater diameter than that of the pipe sections whereby when they are connected in the ditch the corrugations of the pipe sections may rest upon the solid undisturbed earth.

2. A pipe section for culverts having corrugations throughout the same forming external shoulders, a bell on one end tapering outward internally and a sleeve tapering to-

ward the other end and of less diameter than said bell.

3. A pipe section for culverts corrugated throughout its length and provided at one
5 end with a bell of no greater diameter than that of the pipe and having the opening therein tapering outward and a connecting sleeve on the opposite end of said pipe taper-

ing toward the end and adapted to fit into the bell of a corresponding pipe section. 10

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

LOUIS SCHNUERER.

Witnesses:

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