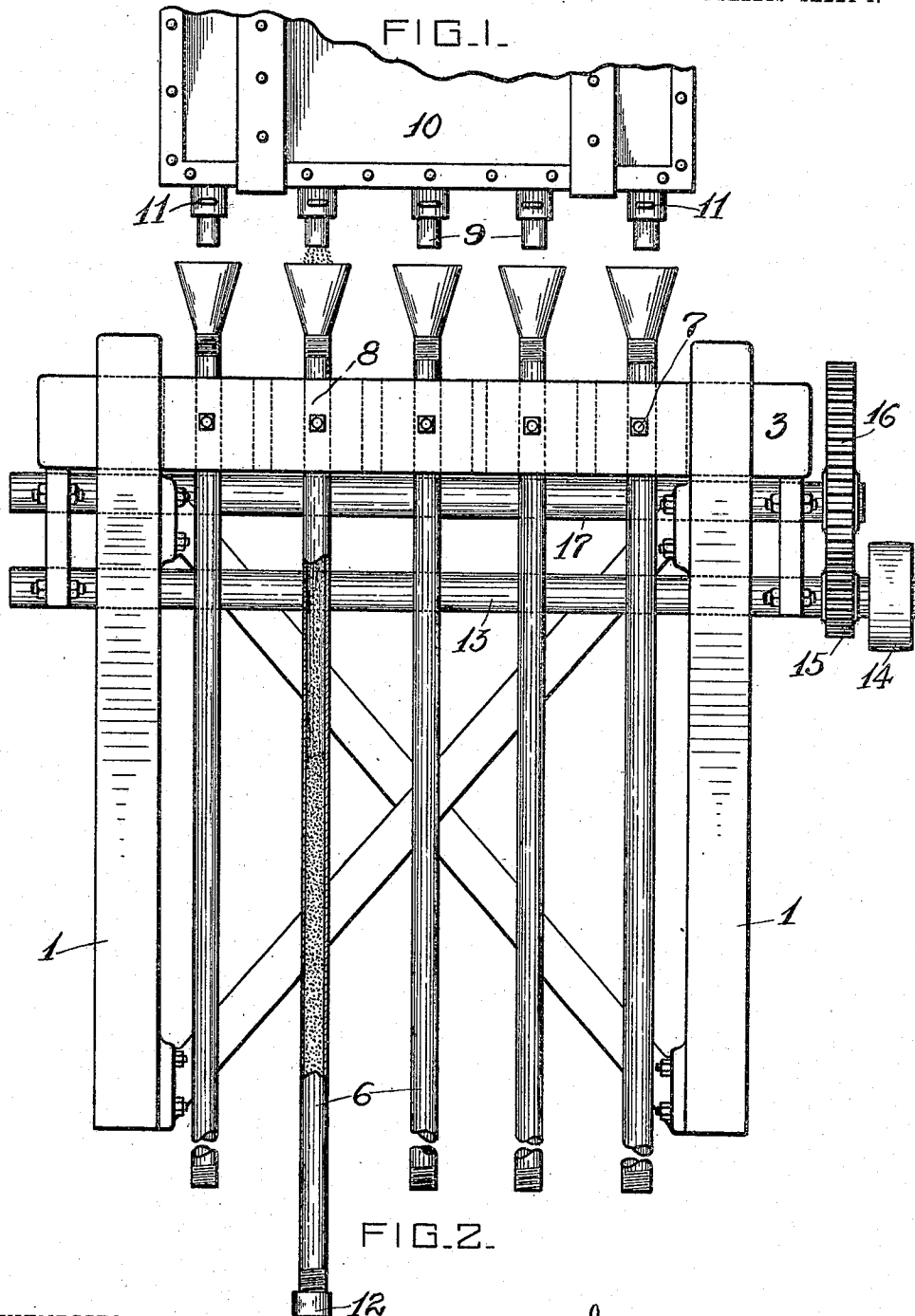


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 APPLICATION FILED JAN. 29, 1907.

942,355.

Patented Dec. 7, 1909.
 2 SHEETS—SHEET 1.



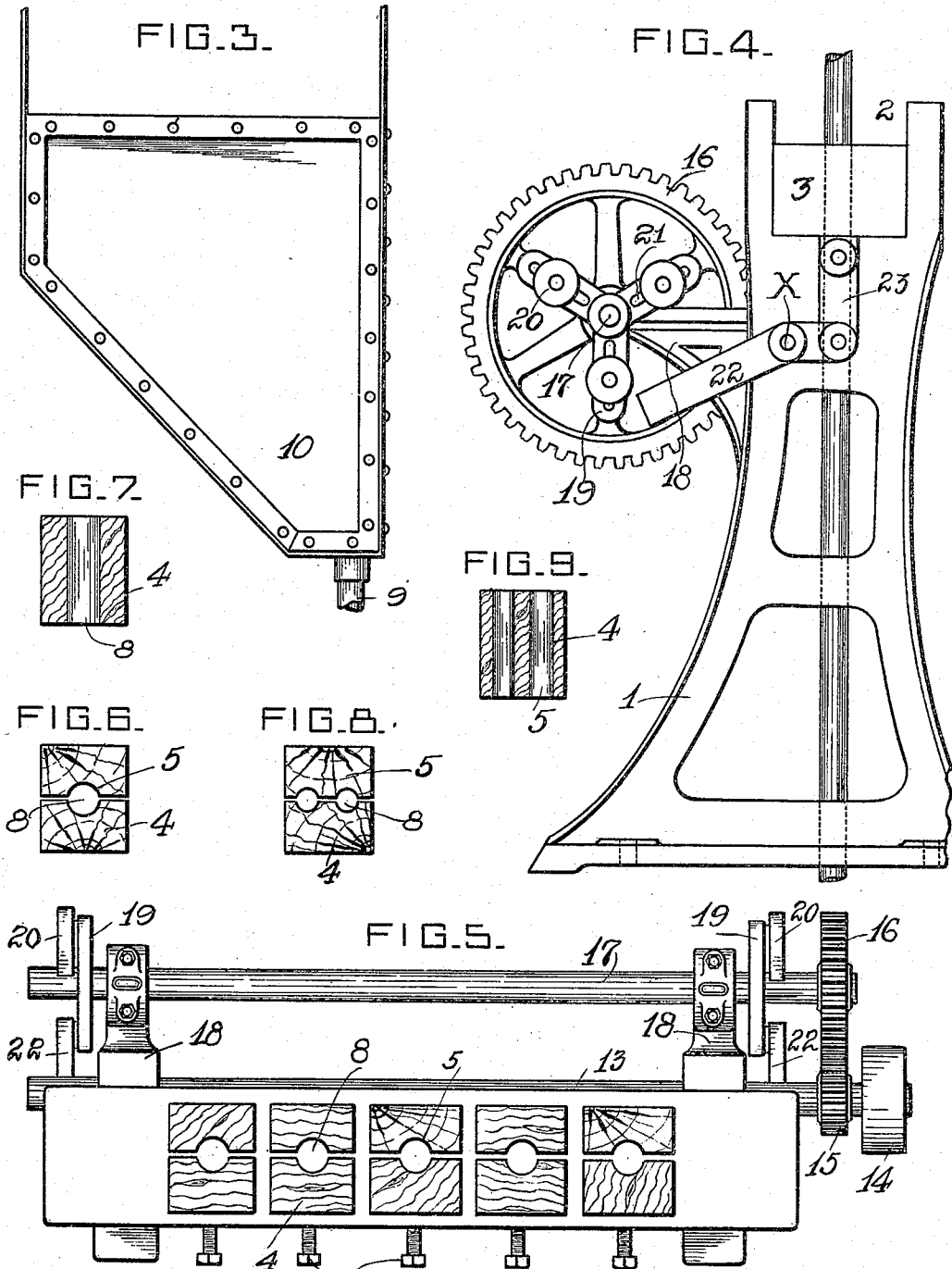
WITNESSES:
W. J. Brown
P. A. Williams

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UNITED STATES PATENT OFFICE.

CHARLES O. SCHOLZ, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO
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APPARATUS FOR FILLING METAL PIPES WITH SAND.

942,355.

Specification of Letters Patent.

Patented Dec. 7, 1909.

Application filed January 29, 1907. Serial No. 354,778.

To all whom it may concern:

Be it known that I, CHARLES O. SCHOLZ, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Apparatus for Filling Metal Pipes with Sand, of which improvement the following is a specification.

My invention relates to improvements in apparatus for filling metal pipes with sand preparatory to bending the same.

The object of my invention is to produce a device adapted to fill a number of pipes simultaneously. This object I accomplish by means of the apparatus hereinafter more fully described, reference being had to the accompanying drawings, forming part hereof, in which:—

Figure 1 indicates a front elevation of the sand hopper. Fig. 2 is front elevation of the pipe filler. Fig. 3 is an end view of the hopper. Fig. 4 is an end view of the filler. Fig. 5 is a plan view of the same. Figs. 6, 7, 8 and 9 are details of the pipe holders.

Referring to said drawings, 1 is a frame, the end of which is provided with a recess 2, in which the ends of the pipe support 3 are seated. The said support 3 is provided with series of pockets open at the bottom in which the pipe clamps or holders 4 are seated. The said clamps or holders are formed of wood in two sections preferably, the inner surfaces of each of which are provided with vertically disposed semi-circular grooves 5, and when opposed as shown in Figs. 4, 5, 6 and 8, conform in cross section to that of the pipes 6, the outer surfaces of which said sections are adapted to engage. The said clamps are adapted to be tightened upon said pipes by means of the set screws 7, which are adapted to move one of the said sections closely therearound, the pipes being held in the opening 8 formed between or in the holders, the upper ends of said pipes being thereby suspended immediately beneath the spouts or sand delivery pipes 9, secured in the bottom of the said hopper 10, the said pipes 9 being provided with gates 11 to control the discharge of sand therethrough to the several pipes, the upper ends of said pipes having funnels screwed therein to facilitate the charging of same with sand, and the lower ends of said pipes are closed by caps 12. The said pipe support 3 is elevated and permitted to drop

with a jolt or jar, in order to pack the sand in said pipes, by means of the mechanism comprising a power or driving shaft 13, the ends of which are suitably journaled in said frame and on one end of which is mounted the belt pulley 14 and adjacent thereto the small cog wheel 15 which meshes and transmits power to the larger cog wheel 16 mounted on the end of a shaft 17 parallel with said shaft 13, which is suitably journaled in a bracket 18 extending from said frame. A three membered spider 19, mounted on said shaft 17 carries rollers 20, which are mounted on pins seated in slots 21 formed in the bars of said spiders and are adapted to engage the long bar of the lever 22 which is pivotally secured at α to the ends of the frame, the short arm of said lever being pivotally connected to the bar 23, the upper end of which is connected to a lug, secured upon the bottom or lower side of the support 3, whereby, when the rollers 20 alternately engage or impinge upon the long member of said lever and force the same downwardly, the opposite end or short member is thrown upwardly, carrying with it the bar, thus elevating the pipe support. Immediately the rollers pass off the long member of said lever the bar drops, and the pipe support likewise drops into its recess with a considerable jar or jolt, and this is repeated rapidly, dependent upon the speed of rotation of the shaft on which the spider is mounted. This rapidly repeated jarring action serves to thoroughly compact the sand in the pipes carried by the supporter, and in a fraction of the time required by the devices now in use.

The advantages of my device will be obvious to those having knowledge of the methods and appliances now used for such purpose.

Having described my invention what I claim and desire to secure by Letters Patent, is:

1. In a pipe filler, the combination of a carrier or support, means to suspend a pipe in said support, and means to raise and drop said support with a jolting action.

2. In a pipe filling device, the combination of a carrier or support for the pipe, means to suspend a pipe in said support, a hopper adapted to contain sand so disposed with relation to said pipes that the sand therein may be charged into said pipes and

means to raise and drop said support with a jolting action.

3. In a pipe filling device, the combination of a frame, a carrier or pipe support
5 mounted therein, means to suspend a pipe in said support, a hopper adapted to contain sand for charging said pipe, and means to rapidly raise and drop said pipe support whereby the sand being charged therein is
10 thoroughly compacted.

4. In a pipe filling device, the combination of a frame, a carrier or support for the pipes, means to suspend a plurality of pipes
15 in said support, and means to raise and drop said support with a jolt or jarring action.

5. In a pipe filling device, the combination of a frame, a carrier or support for pipes mounted in said frame, clamps mount-

ed in said support for securing the pipes therein, a power shaft journaled in said 20 frame, a shaft driven from said power shaft, a spider carrying rollers mounted on said last mentioned shaft, an elbow lever actuated by said rollers adapted to contact with and
25 recede from said support whereby said support is given a rapid up and down jolting movement for the purpose of thoroughly compacting the sand in said pipes.

In testimony whereof, I have hereunto signed my name in the presence of two sub- 30 scribing witnesses.

CHARLES O. SCHOLZ.

In the presence of—

CLARENCE A. WILLIAMS,
JOHN H. RONEY.