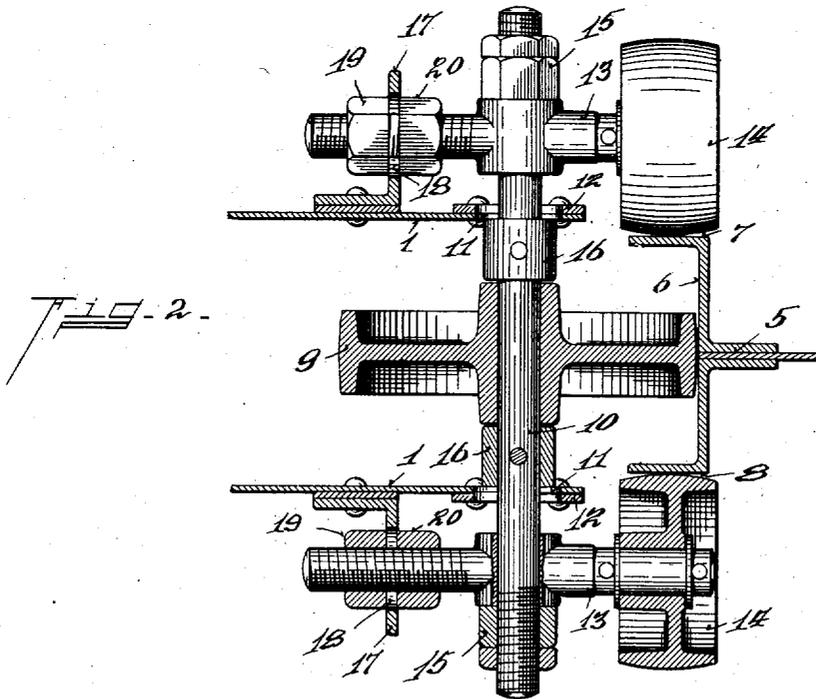
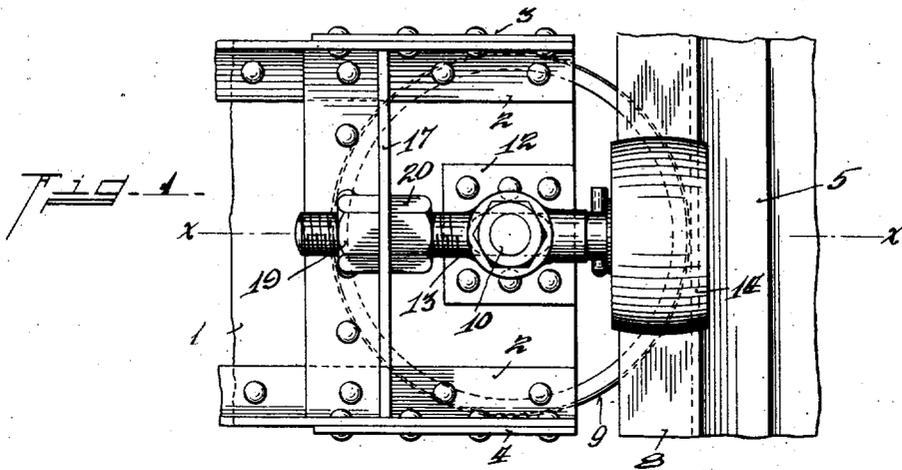


H. J. STOFFELS.
 GUIDE FRAME FOR GAS HOLDERS.
 APPLICATION FILED MAR. 21, 1910.

972,785.

Patented Oct. 11, 1910.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY JOHN STOFFELS, OF NORWOOD, OHIO, ASSIGNOR TO THE STACEY MANUFACTURING COMPANY, OF ELMWOOD, OHIO, A CORPORATION.

GUIDE-FRAME FOR GAS-HOLDERS.

972,785.

Specification of Letters Patent. Patented Oct. 11, 1910.

Application filed March 21, 1910. Serial No. 550,777.

To all whom it may concern:

Be it known that I, HENRY J. STOFFELS, a subject of the German Empire, residing at Norwood, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Guide-Frames for Gas-Holders, of which the following is a specification.

My invention relates to an improvement in guiding means, primarily employed in connection with the telescoping shells or sections of a gas-holder.

One of the objects of my invention is to provide the laterally extended arms of a gas-holder with a radial roller, adapted to engage and travel upon the tangential face of a respective guide column, preferably of channel-iron form, and tangential rolls supported upon the axis of the radial roller and adapted to engage and travel over the radial surfaces of the column.

Another object of my invention is to provide a gas-holder with guiding rollers, adapted to travel upon a guide column, radially and tangentially mounted relative to the holder with their axes in the same plane.

Another object of my invention is to provide a gas-holder with guiding rollers, adapted to travel upon a guide column, radially and tangentially mounted relative to the holder, with their axes in the same plane, and means for coincidentally adjusting the rollers relative to the guide column.

Further objects and features of my invention will be more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which:—

Figure 1 is a side elevation of a portion of bracket arm projecting from a gas-holder horizontally, and guide rollers mounted thereon, and a portion of the vertical guide column. Fig. 2 is a section on line *x, x*, Fig. 1.

In the drawings, I have omitted the illustration of a complete gas-holder equipment, comprising principally a holder formed of a series of shells or sections telescopically engaging with each other, provided with hook ends, adapted to intermesh respectively with each other as the sections or shells are being raised in filling the holder, with each section provided with a series of projecting arms or brackets extended from the periph-

ery of each section and traveling and engaging upon respective vertical guiding columns, the general construction of which is old and well-known in the art. Therefore, in the drawings, I have only illustrated a portion of one of the horizontally projecting arms or brackets fixed to one section of a holder and a section of a guide column.

While I have illustrated the bracket arm of peculiar plate and angle-iron construction, it is obvious, however, that the same may be variously modified and constructed, without departing from the features of my invention, that shown being more or less preferred as it provides a simple and strong construction.

The construction of arm end supporting the guiding rollers primarily consists of the vertically disposed parallel steel side plates 1.

2 represents angle-irons secured along the top and bottom edge of the outside face of the side plates 1.

3, 4, represents respectively top and bottom connecting plates secured to the angle irons 2, thereby producing a rectangular formation of arm end.

5 represents a vertical guiding column, preferably of channel formation, having a tangential surface 6, and the radial surfaces 7 and 8.

9 represents a roller radially disposed relative to the holder and journaled upon the axle-rod 10, the periphery of said roller is adapted to engage and travel over the tangential surface 6 of the column. The axle 10 is supported upon the arm and projects through the oblong radial slots 11, formed in each of the side plates 1, forming clearance for adjusting said axle to and from the guide column 5.

12 represents reinforcing plates riveted to the side plates 1, likewise provided with an oblong slot through which the axle projects.

13 represents radially disposed axles, each having an intermediate boss bored to fit the axle 10, one axle 13 being mounted upon each end of the axle 10, and preferably outside of the bracket arm. Upon one end of each axle 13 is journaled the tangentially disposed rollers 14, their peripheries adapted to engage with and travel upon the radial surfaces 7 and 8 respectively of the column 5.

15 represents nuts, screw threaded upon

each end of the axle 10, for maintaining the axles 13, upon the axle 10, in any adjusted position.

16 represents collars fixed to the axle 10 intermediate of the side plates 1, to maintain the axle and its connections upon the arm against lateral displacement.

17 represents angle plates, one secured to each side plate 1, each provided with an oblong slot 18, through which the rear portions of the axles 13 project, and maintained in position by means of the nuts 19, 20, screw threaded upon the axles 13, one upon each side of the angle irons 17. By means of these nuts 19, 20, radial coincident adjustment of all the rollers, relative to the guide column, can be made.

By this construction, I provide a self-contained axle structure for radially and tangentially disposed guide rollers, with their axes angularly disposed in the same horizontal plane, providing for a uniform distribution of the strains upon the whole as a carriage.

25 Having described my invention, I claim:—

1. A carriage for guiding a gas-holder, a bracket arm, a unitary three-fold axle for radially and tangentially journaling a series of rollers in the same horizontal plane mounted on said arm, a radially disposed and a pair of tangentially disposed rollers journaled on said axle, and means for adjusting said axle radially.

2. The combination of a gas-holder and 35 guiding column, a bracket arm, an axle supported upon said arm for journaling a ra-

dially disposed roller, a radial roller adapted to travel upon the guiding column, angularly disposed axles mounted on said axle for journaling tangentially disposed rollers, 40 rollers on said axles traveling upon the guiding column, said rollers forming a three-point bearing against said column, means mounted on said arm for horizontally supporting said angularly disposed axles, means 45 for coincidentally adjusting said axles upon the same relative to the column.

3. In a device of the class described, a guide member consisting of a channel-iron having a main intermediate and internal 50 bearing face at right angles to two exterior bearing faces, rollers carried by the member to be guided engaging said bearing faces respectively, the peripheries of said rollers lying approximately in the same plane, and 55 means for adjusting said rollers radially relative to said guide member independently and as a unit.

4. In a device of the class described, a guide member having three bearing faces, 60 a radial and two tangential thereto, a series of rollers in the same horizontal plane, carried by the member to be guided engaging said bearing faces respectively, and means 65 for adjusting said rollers radially as a unit relative to said guide member.

In testimony whereof, I have hereunto set my hand.

HENRY JOHN STOFFELS.

Witnesses:

WM. F. DUNKER,

WM. B. HILLEBRAND.