

line between the two series, means for imparting rotation to the support, and a tripping device located upon a fixed part in the path of the latches of the closures, substantially as and for the purpose set forth. 7th. An acetylene gas generator comprising a feeding mechanism, a horizontally rotating support having radial arms, and carbide holders fitting upon said radial arms, and placed in position or removed by radial movement of the arms, and tripping devices for keeping the holders closed, engaged and released by the circumferential movement of the holders, substantially as herein explained. 8th. In combination with a moving part of a carbide feeding mechanism, a holder mounted upon said moving part and provided with a swinging closure for its discharging end, a swinging latch arm mounted upon the holder, and a shoulder carried by said latch arm, engaging beneath the swinging closure and adjustable to and from the latter, substantially as and for the purpose set forth. 9th. In an acetylene gas generator, the combination of a generating chamber, a closed top for said chamber having an eccentric feed opening, a horizontally rotating spider for carbide holders concentrically mounted upon the top of the generator, holders mounted upon the spider at a radial distance which brings them successively over the feed opening in the top of the generator, and movable radially into and out of engagement with the spider arms, swing closures for the lower ends of said holders, detents for said closures mounted upon pivots radially disposed to the spider on the sides of the holders next to the centre of the spider, and means mounted upon the generator at a radial distance which brings it within the path of the holders for engaging and releasing said detents as each holder comes vertically above the discharge openings, substantially as herein explained. 10th. An acetylene gas generator, the combination of a generating chamber having a feeding opening in its top, a horizontally rotating spider centrally mounted above said generator having radial arms, inverted carbide holders having sockets on their upper closed ends engaging with the spider arms, and having downwardly swinging closures for their lower ends with detents releasable by movement in the direction in which the holders travel with the spider, and means on the generator for engaging the detents as the holders move past the feed opening of the generator and thereby cause the discharge of the contents of the holders successively into said feed opening, as herein explained. 11th. In an acetylene gas generator, the combination of the generating chamber, a waste chamber and a carbide chamber arranged in vertical series and each separate from the rest, and carbide carrying and delivering mechanism located in and enclosed by the carbide chamber, substantially as and for the purpose set forth. 12th. An acetylene gas generator, a generating chamber having a closed top provided with a door opening, a partition providing a waste chamber above the generating chamber and having a sealed communication therewith, a discharge outlet from the waste chamber, an automatically closing door for the opening in the top, and means for supplying carbide upon the door, substantially as described. 13th. An acetylene gas generator comprising a generating chamber having a closed top provided with a door opening, a partition providing a waste chamber located above and having a passage communicating with said generating chamber, and a door admitting carbide to the waste chamber above, the passage from said waste chamber to the generating chamber, substantially as and for the purpose set forth. 14th. An acetylene gas generator comprising a generating chamber having a closed top provided with a door opening, a partition providing a waste chamber located above, and communicating with said generating chamber, and an automatic door affording communication from the outside into said waste chamber, substantially as set forth. 15th. An acetylene gas generator comprising a generating chamber, a waste chamber located above and communicating through a sealed passage with said generating chamber, an escape outlet for gas from said waste chamber, and a safety valve communicating between the generating chamber and the waste chamber, whereby surplus of generated gas may be discharged through a determined outlet and prevented from entering the room in which the generator is located, substantially as herein explained. 16th. In an acetylene gas machine, the combination of a generating chamber, a waste chamber, and a carbide chamber communicating with the generating chamber by a chute extending through the waste chamber. 17th. An acetylene machine, the combination of the generating chamber, the waste chamber above the generating chamber, and the carbide chamber above the waste chamber communicating with the generating chamber through a water sealed chute, said chute having a gas trap communicating with the waste chamber. 18th. In an acetylene machine, the combination of the generating, waste, and carbide chambers arranged in vertical series, a chute communicating between the carbide and generating chambers, and a gas trap in the chute communicating with the waste chamber and water sealed from the passage into the carbide chamber. 19th. In combination with an acetylene gas generator, a carbide chamber, horizontally rotating mechanism for carrying and delivering charges of carbide located in said chamber, detachable carbide holders forming part of such mechanism, and a door in the side wall of said carbide chamber through which the holders may be removed and replaced as they are successively brought opposite thereto by rotation of the carrier, substantially in the manner and for the purpose set forth. 20th. In a combination with an acetylene gas generator, a closed carbide chamber, a rotating mechanism for supporting the carbide, holders detachably mounted upon said carbide holder and brought by the latter successively into position for delivering their contents to the

generator, and a door restricted in the carbide chamber to which the removable holders are successively brought by rotation of the supporting mechanism after passing the discharging position, substantially as and for the purpose set forth. 21st. In combination with an acetylene gas generator, the rotary supporting spider having radially slotted arms, and the carbide holders detachably mounted upon said arms by means of T-heads which fit in the slots, and a discharging trip engaging the holders in a circumferential direction, substantially in the manner and for the purposes set forth. 22nd. In combination with an acetylene gas machine, dumping carbide holders and an automatically closing trap through which the holders dump, said trap being formed by the downwardly projecting triangular walls 51, and the angularly arranged doors automatically closing against the inclined edges of said walls, substantially as set forth. 23rd. In combination with an acetylene gas generator, the head 40 resting upon the body of the generator, the diaphragm 46 carrying the mechanism for controlling the discharge of the carbide, and suspended from said head and removable with it, substantially in the manner and for the purposes set forth. 24th. In an acetylene gas generator, the combination of the body of the generator, the removable head 40, the frame 42 suspended from the head by means of the rods 41, the shaft 6 having bearings in the head and in said frame, the carbide carrying and delivering mechanism mounted on said shaft, the diaphragm 46 supported upon the frame, and the trap 39 mounted on the diaphragm and through which the carbide discharges, substantially as set forth. 25th. In an acetylene gas machine, the combination of a generating chamber, a waste chamber located above and separated from the generating chamber, and a carbide chamber located above and separated from the waste chamber, substantially as and for the purposes set forth. 26th. In an acetylene gas machine, the combination of the body of the generator, the tapered hood 54 located in and removable from the body of the generator and forming a generating chamber therein, and a detachable chute for delivering the carbide through the inclined wall of the hood, substantially as explained. 27th. In combination with the body of the generator, the hood 54 located therein and providing a generating chamber, and the guard 56 for preventing the escape of gas passed through the lower edge of the hood, substantially as and for the purposes set forth. 28th. In combination with the body of the generator, having the ledge 55 projecting inwardly from its inner wall, the hood 54 having its lower edge resting upon the ledge 55, and the guard 56, substantially as and for the purposes set forth. 29th. In an acetylene gas generator, the combination of the removable hood 54 located therein and providing a generating chamber, and the chute 58 projecting through a side wall of the hood and delivering carbide therinto, substantially as and for the purposes set forth. 30th. In an acetylene gas generator, the combination of the hood 54 inclined upwardly and laterally and providing the inclined wall 57, the chute 58 projecting downwardly in said generator and entering the inclined wall 57, and suitable means for delivering carbide into said chute, substantially as and for the purposes set forth. 31st. In an acetylene gas generator, the combination of the hood 54, the chute 58 delivering into said hood, and the deflector 64 inclined downwardly from its ends to the centre and from its middle line laterally, substantially as and for the purposes set forth. 32nd. In an acetylene gas generator, the combination of the waste chamber B, the hood 54 providing the generating chamber C, and having openings 68 at its base through which water may pass from one chamber to the other, and the guard 56 projecting upwardly within the base of the hood, substantially as set forth.

#### No. 68,858. Roller Bearing. (Coussinet anti-frottant.)

The Moffet Bearing Company, Council Bluffs, Iowa, assignee of Julius Augustus Perkins, Omaha, Nebraska, both in the U.S.A., 29th September, 1900; 6 years. (Filed 8th June, 1900.)

*Claim.*—1st. A roller bearing containing a plurality of bearing rollers, a cage therefor having extended from its walls supports to centre and align said rollers, and anti-friction washers surrounding said supports and interposed between the ends of said rollers and the walls of said cage. 2nd. In a roller bearing, a plurality of metallic bearing rollers chambered at their ends, roller supports entering said chambers, and anti-friction washers located at the ends of said rollers and surrounding said supports, said washers preventing the contact of said rollers with said supports. 3rd. A roller bearing, containing a plurality of bearing rollers chambered at their ends, supports to enter the chambers of and align said rollers, and anti-friction washers interposed between the ends of said rollers and the inner sides of said cage, said washers preventing contact of said bearing rollers with said supports and also with said cage. 4th. A bearing roller for use in a roller bearing, said roller consisting of a metallic body, having applied to and contained within its ends anti-friction washers, the washers extending from the ends of the metallic body of the roller. 5th. In a roller bearing, a series of bearing rollers, a cage having aligning means for said rollers, and non-metallic means to prevent contact of said rollers with any part of said cage or its aligning means. 6th. In a roller bearing, a cage containing a series of metallic rollers, each roller having fixed to its opposite ends and travelling therewith an anti-friction washer. 7th. A roller bearing cage, composed of detached end members united by cross pieces having projections provided with right angled