Jan. 26, 1926. **1,571,053**

A. F. HARTER

GAS RANGE

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Fig. 1.

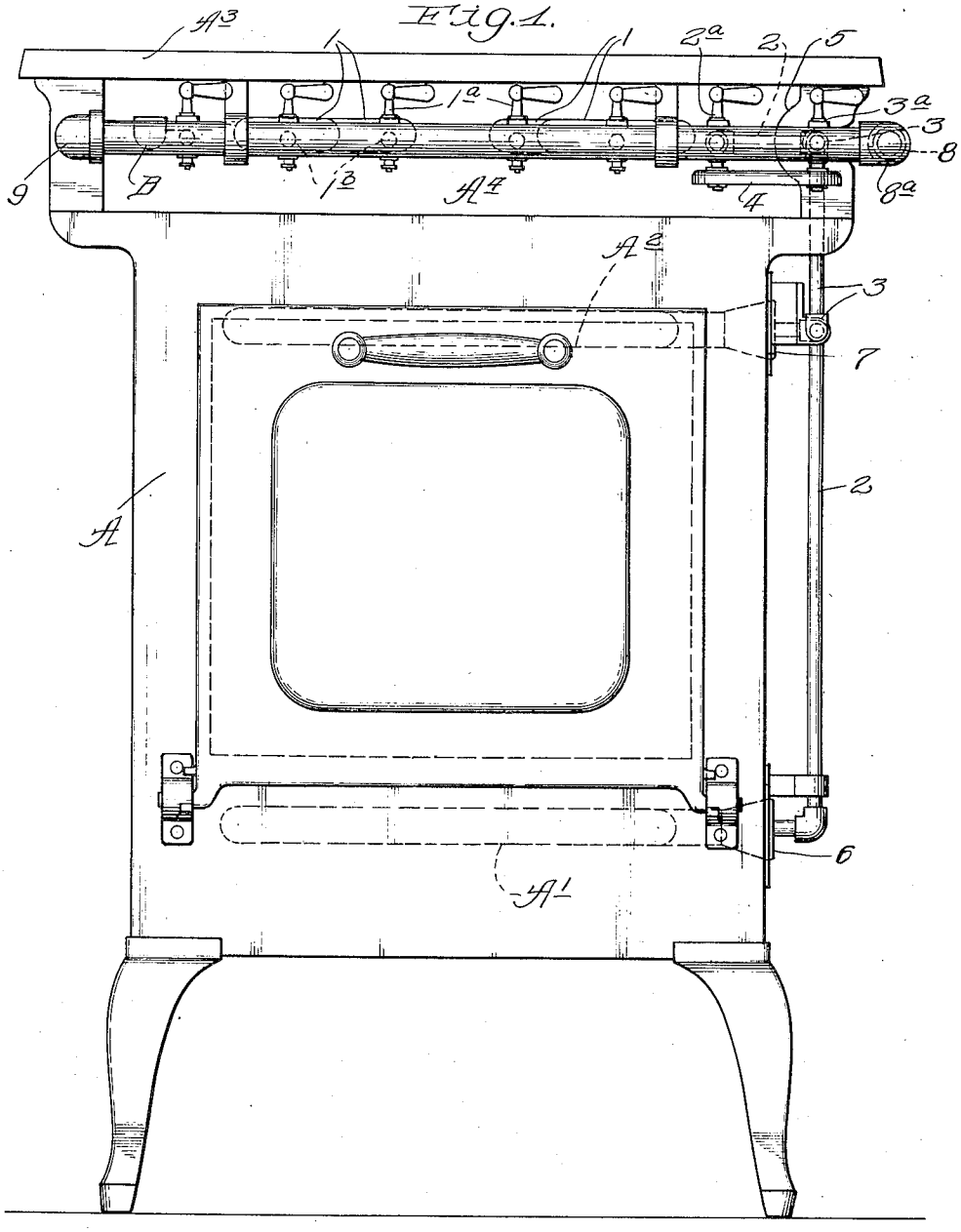

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Fig. 2.

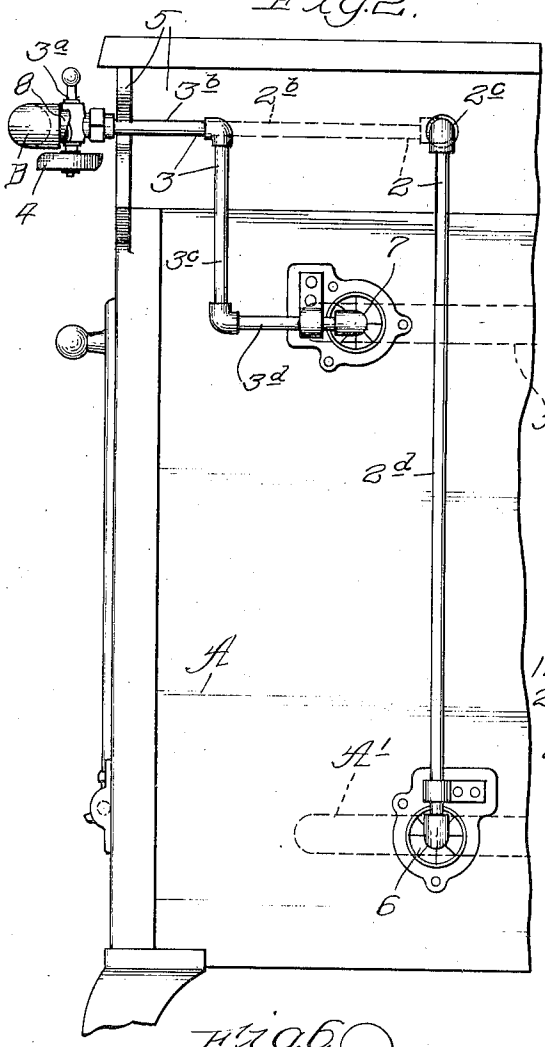


Fig. 3.

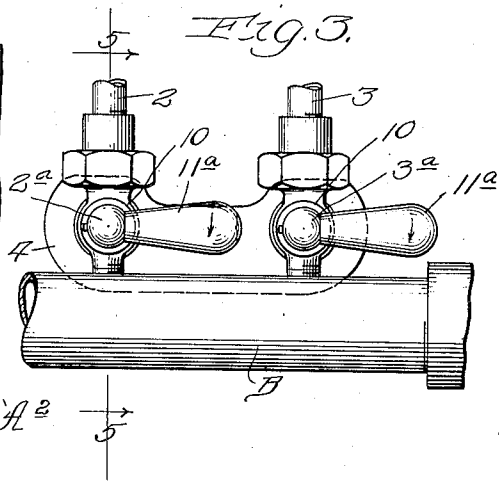


Fig. 4.

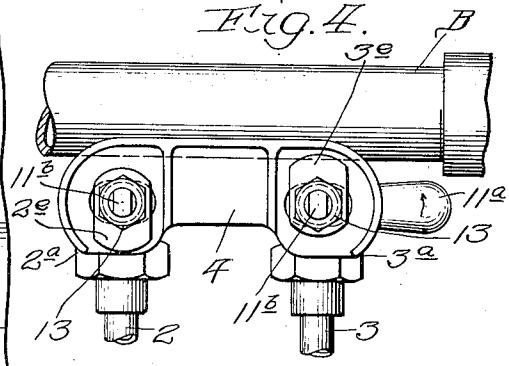


Fig. 5.

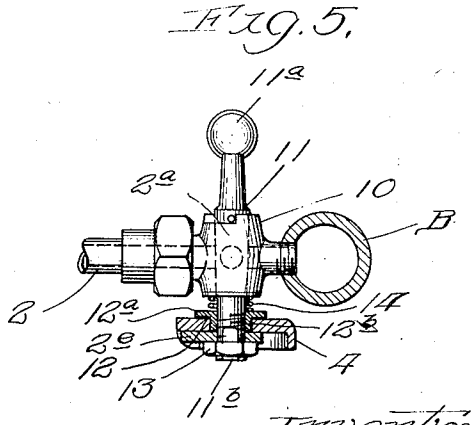


Fig. 6.

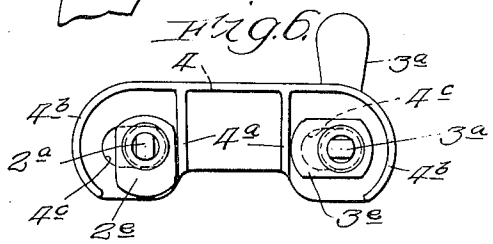
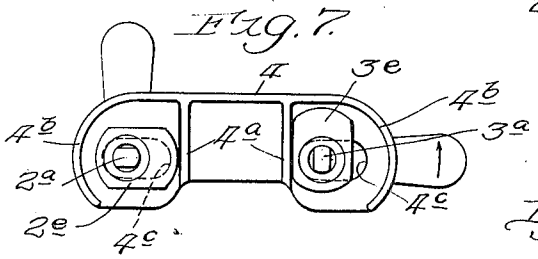


Fig. 7.



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UNITED STATES PATENT OFFICE.

AUGUSTUS F. HARTER, OF OAK PARK, ILLINOIS, ASSIGNOR TO CRIBBEN & SEXTON COMPANY, OF CHIGACO, ILLINOIS, A CORPORATION OF ILLINOIS.

GAS RANGE.

Application filed August 6, 1924. Serial No. 730,399.

To all whom it may concern:

Be it known that I, AUGUSTUS F. HARTER, a citizen of the United States, residing at Oak Park, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Gas Ranges, of which the following is a specification.

This invention relates particularly to a gas range of the type employing a cooking top surmounting an oven equipped with a broiler burner and an oven burner.

The primary object is to provide an improved device for preventing gas from being supplied to the broiler burner while the oven burner is lighted, and vice versa. A further object is to provide an improved and simplified arrangement, or construction, where a safety device of the character indicated is employed.

The invention is illustrated in its preferred embodiment in the accompanying drawings, in which—

Figure 1 represents a front elevational view of a gas range embodying the invention; Fig. 2, a broken side elevational view of the same; Fig. 3, a broken plan view of the manifold and the two gas-cocks which control the supply of gas to the oven and broiler burners; Fig. 4, a bottom plan view of the same; Fig. 5, a broken vertical sectional view taken as indicated at line 5—5 of Fig. 3; Fig. 6, a bottom plan view of the gas-cocks shown in Figs. 3 and 4, showing one of the gas-cocks in open position; and Fig. 7, a similar view showing the other gas-cock in open position.

The gas range illustrated comprises an oven A equipped with an oven burner A′ and a broiler burner A^2; a cooking top A^3 disposed at a suitable distance above the oven to provide a space A^4 for the cooking top burners; and a manifold B with which are connected the various burner-supply pipes.

The construction of the body of the range may be any suitable construction. The manifold B extends across the front of the range beneath the plane of the cooking top A^3. The cooking top burners are designated 1. These burners may be of any desired size and number. The supply to the cooking top burners is regulated by valves, or gas-cocks, 1^a, interposed in gas pipes 1^b which are connected with the manifold in the usual manner.

Leading from the manifold B, near one end of the range, are the gas-supply pipes 2 and 3 which supply the oven burner A′ and the broiler burner A^2, respectively. These pipes are equipped just back of the manifold B with valves, or gas-cocks, 2^a and 3^a, respectively. A safety lock plate 4 is interlockingly connected with extensions with which the gas-cocks 2^a and 3^a are equipped.

The gas pipe 2 has a portion 2^b which extends rearwardly from the manifold and which is shown located in the space A^4, that is, at the inside of the lateral wall 5 of the chamber A^4. From the rear end of the pipe section 2^b, a section 2^c extends outwardly through the side-wall 5 and is joined to a descending pipe section 2^d which leads to the air intake 6 of the oven burner A′.

The pipe 3 has a section 3^b which extends rearwardly from the manifold and which has connected with it a descending pipe section 3^c to which, in turn, is joined a rearwardly extending section 3^d which leads to the air intake 7 of the broiler burner. The broiler burner is located at the upper portion of the oven, and the regular oven burner is located at the lower portion of the oven.

The cooking top A^3 is equipped with the usual grid (not shown). Gas is supplied to the manifold B, through a pipe 8, which is connected by an elbow 8^a. The other end of the manifold is equipped with a blind end, or cap, 9.

Each of the gas-cocks 2^a and 3^a comprises a casing 10 having a vertical tapered bore extending therethrough, in which is mounted the cock 11. The cock is equipped, at its upper end, with a handle 11^a and has its lower end provided with a threaded extension 11^b, fitted with nuts 12 and 13. Interposed between the nut 12 and the lower end of the casing is a coil spring 14.

The gas-cock 2^a has rigidly secured to the extension mentioned a cam 2^e; and, similarly, the gas-cock 3^a has rigidly secured to its lower extension a cam 3^e. The sides of the threaded extension 11^b of the gas-cocks are squared, and the cams are provided with angular openings which fit on the extensions. The cams are then clamped between the nuts 12 and 13. The nut 12 is provided, at its upper end, with a flange 12^a, beneath which is a tubular portion 12^b against whose lower end the upper surface of the cam

bears. In other words, the cam is clamped between the nuts.

The cam-actuated locking member 4 comprises a horizontally disposed bar, or casting, having its lower side equipped with cam lugs 4^a adapted to be engaged by the cams 2^e and 3^e, respectively. The cams 2^e and 3^e point in opposite directions, so that when either gas-cock is turned in the direction indicated by the arrow in Fig. 3, the locking plate 4 will be shifted so as to bring one of the lugs 4^a into position to lock the other gas-cock. For example, in Fig. 6, the gas-cock 3^a is shown in the open position, and the gas-cock 2^a is locked in the closed position; and in Fig. 7, the reverse condition is shown. The locking plate 4 is further provided with curved end flanges 4^b which are adapted to be engaged by a cam to shift the locking plate to the neutral position illustrated in Fig. 4 when the gas-cock is turned to the closed position. The locking plate 4 is provided with perforations, or slots, 4^c, which freely embrace the tubular portions 12^b of the nuts 12, thus permitting the locking plate to be shifted readily. It will be noted that the nuts 12 and 13 serve as lock nuts, inasmuch as the cam is firmly clamped between said nuts, notwithstanding the fact that the locking plate 4 can slide freely.

The construction described is simple, cheap, and thoroughly effective for its purpose. The arrangement involving the use of gas-cocks which control the supply to the oven and to the broiler burners, associated with the manifold from which the cooking top burners are supplied, tends to reduce the cost of construction and to greatly facilitate the manipulation of the gas-cocks.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, but the appended claims should be construed as broadly as permissible, in view of the prior art.

What I regard as new, and desire to secure by Letters Patent, is:

1. The combination of a pair of gas-cock casings, taper gas-cocks working therein having handles at one end and having at the other end extensions equipped with cams rigid therewith, springs interposed between said casings and cams, and a cam-shifted lock-plate connected with said extensions and serving, when either gas-cock is open, to lock the other gas-cock.

2. The combination of a pair of gas-cock casings, gas-cocks working therein having extensions equipped with cams rigid therewith, nuts on said extensions between which said cams are clamped, springs interposed between said casings and the adjacent nuts, and a cam-shifted locking plate interposed between said nuts and adapted to slide freely with relation thereto, said locking plate serving, when either gas-cock is open, to lock the other gas-cock.

3. In a gas range provided with a cooking top, an oven and broiler and oven burners, the combination with a horizontal gas-manifold extending across the front of the range beneath the plane of the cooking top and valves controlling the supply of gas from said manifold to the cooking top burners, of a pair of gas pipes connected with said manifold at the rear side thereof and leading to the air inlets of the oven and broiler burners, casings interposed in said gas pipes adjacent said manifold, gas-cocks working in said casings and equipped at their upper ends with handles, and an interlocking device connecting said gas-cocks and serving, when one gas-cock is open, to lock the other gas-cock in closed position.

4. In a gas-range, the combination of an oven equipped with a broiler burner and an oven burner, a cooking top superposed above said oven, a transversely extending manifold disposed beneath the plane of the cooking top, gas pipes connected with said manifold and serving to supply the cooking top burners, said gas pipes being equipped with gas-cocks disposed back of said manifold, gas pipes connected with said manifold and leading to one side of said oven and serving to supply gas to the broiler burner and oven burner, gas-cocks disposed back of said manifold and controlling said last-named pipes, said last-named gas-cocks being equipped at their upper ends with handles and provided at their lower ends with extensions equipped with cams, and a locking plate carried by said extensions and co-acting with said cams.

AUGUSTUS F. HARTER.