March 3, 1942. S. B. COVERT 2,274,920

ANDIRON

Filed Sept. 7, 1940

Fig. 1.

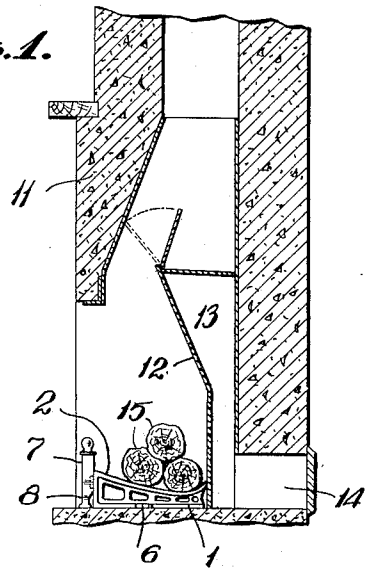


Fig. 2.

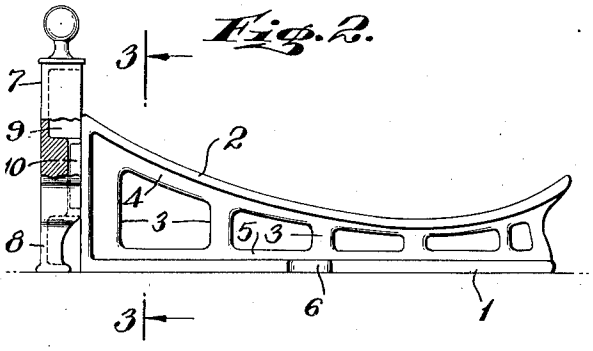


Fig. 4.

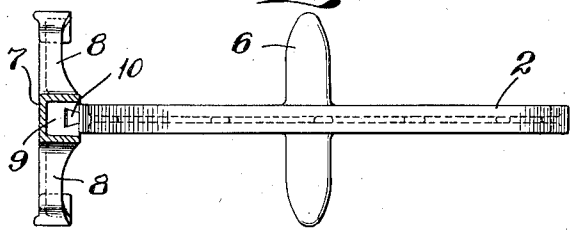


Fig. 3.

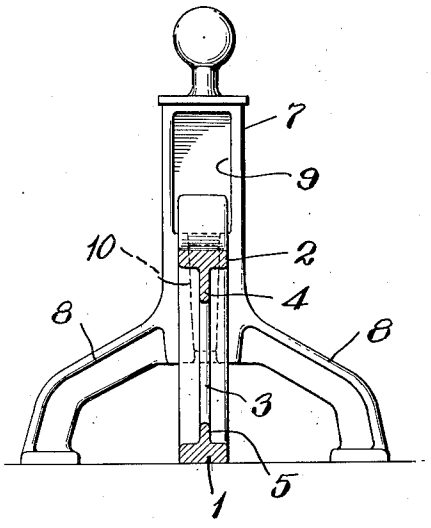


Fig. 5.

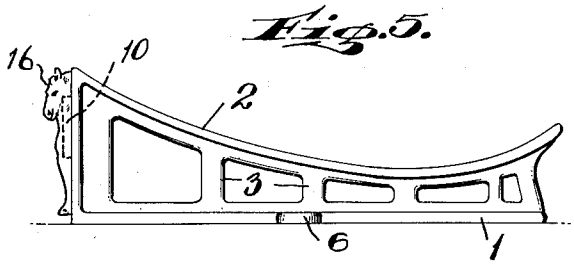
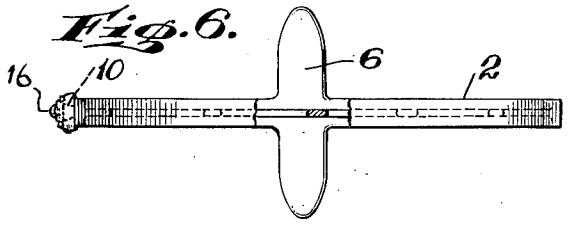


Fig. 6.



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UNITED STATES PATENT OFFICE

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ANDIRON

Stanley Burton Covert, Larchmont, N. Y.

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7 Claims. (Cl. 126—298)

This invention relates to improvements in andirons for fireplaces, the principal object of the invention being to provide an andiron of such construction that while it supports the logs at the proper height above the hearth to induce combustion, itself rests on the hearth in a manner to prevent sagging after a prolonged period of use.

A further object of the invention is to provide an andiron having its log-supporting surface of such formation that the front logs will tend to move toward the rear, while the rearmost log will be maintained spaced from the back wall of the fireplace thereby forming a gap for the passage of heat to connecting flues formed in the wall of the fireplace.

A further object of the invention is to provide an andiron so constructed that a removable, ornamental front portion may be used therewith, said ornamental front portion optionally either extending above the log-supporting surface of the andiron, or terminating approximately on the same plane with the highest point in the log-supporting surface.

A further object of the invention is to provide an andiron which, by its service, will maintain the center of combustion toward the rear of the fireplace to prevent smoking which occurs when the fuel is permitted to rest on the forward portion of the normal andiron.

A further object of the invention is to provide an andiron which is capable of retaining its proper vertical position without additional lateral support.

Other objects and advantages of the invention will appear as the description proceeds.

In the annexed drawing forming part of this specification:

Fig. 1 is a vertical sectional view through a fireplace illustrating the position of one of the improved andirons therein;

Fig. 2 is a side elevation of an andiron constructed in accordance with the present invention and showing, partly in section, a removable ornamental front member attached to the andiron;

Fig. 3 is a sectional view taken along the line 3—3 of Fig. 2;

Fig. 4 is a plan view of the assembly shown in Fig. 2, the ornamental front member being shown in transverse section on a line immediately above the front end of the andiron;

Fig. 5 is a side view of an andiron standing alone and provided with laterally extending foot portions; and

Fig. 6 is a partly sectional plan view of the andiron shown in Fig. 5.

Referring to the drawing, the improved andiron is of substantially I-shape in cross section thereby providing a horizontally disposed base member 1 adapted to lie flat on the hearth and a longitudinally curved top member 2, the curvature of the front portion of which is relatively long, while that of the rearward portion is relatively short, the members 1 and 2 being connected together by a web which is discontinuous to form a series of vertical supports 3 spaced apart sufficiently to permit free circulation of air between the base and top members of the andiron, a portion of the height of the web being left in the spaces between the members 3 to form continuous longitudinal strengthening ribs 4 and 5 on the top and base members respectively.

An andiron constructed as above described is entirely self-supporting and in ordinary use a pair of such andirons will stand on their bases 1 without any auxiliary or additional lateral support and are sufficient in themselves to support the opposite ends of logs placed thereon to be burned. However, when for special reasons it may be desired to guard against lateral swaying of the andirons, the bases 1 thereof may be provided with laterally extending "foot" portions 6 which may be cast integrally with the bases as indicated in Figs. 4 and 6 or made separately and attached to the bases by any suitable means.

Each of the andirons may have attached thereto an ornamental front, indicated generally by 7, said front member having symmetrically disposed spaced apart legs 8. For permitting the ready connection and disconnection of the andirons from said ornamental front members, the body portion 7 of each of said members is of substantial thickness and is of hollow formation at the upper portion thereof, said hollow formation extending approximately half of the length of the body, as shown at 9 in Figs. 2–4, the lower half of the body being solid, and provided with a dovetailed and downwardly tapered key-way for the reception of a similarly formed lug or key 10 cast on or attached to the front end of the andiron. Thus it will be readily seen that in order to disconnect the andiron shown in Figs. 2–4 from the ornamental front member, it is necessary only to lift the andiron, with relation to the front member, until the key 10 is entirely removed from its key-way, whereupon the member may be removed from the andiron or replaced with equal facility.

In ordinary andirons a front post extending

above the log-supporting surface is necessary to prevent the possibility of burning logs rolling forwardly off of the andiron. The front post is also necessary to provide the legs 8 in order to support the andiron. In my improved andiron, the curved log-supporting surface 2 renders the extended front post unnecessary, and the foot portion 6 eliminates the need of the legs 8 for lateral support. Where a particular user so desires, the conventional front post 7 may be used, as shown in Figs. 3 and 4. However, since the front post 7 is unnecessary with my andiron, it may be eliminated and an unobstructed view of the fire obtained. Where the front post 7 is not desired, an ornament 16, as shown in Figs. 5 and 6, may be supported on the key 10. With this construction the lateral legs 8 are eliminated and an unobstructed view of the fire is obtained. By having the post 7 or the ornament 16 removable, either form may be used in accordance with the esthetic taste of the individual user.

In the construction of modern fireplaces provision is made for admitting air at points other than at the front of the fireplace, which air, after contact with heated surfaces in the fireplace, is carried off by flues to be delivered to points where heat is required. In Fig. 1 is illustrated such a fireplace 11, in which is disposed a back plate 12, usually of metal, at a suitable distance from the back wall of the fireplace to form a chamber 13 communicating at its lower end with an air inlet port 14. The inlet 14 may be located at any desired point at the side or back of the fireplace. Logs 15 are shown in Fig. 1 in their conventional arrangement. After the back plate 12 has been heater, air entering through the port 14 will be heated by contact with the back plate and is then carried off from the chamber 13 to the place of use by appropriate flues, not shown. It will thus be obvious that the greater the heat delivered directly onto the back plate 12 the more effective will be the heating capacity of the flue chamber 13. The curvatures imparted to the top member 2 of my improved andiron are designed to impart maximum efficiency to a fireplace of this type. It is customary to push the andiron into the fireplace until the rear edge contacts the back wall. Even where this is done, as shown in Fig. 1, the top of the andiron at its rear end is of such curvature that the log 15 nearest the back plate 12 will be held at such distance from said back plate as to induce a current of flame to strike directly on the plate, and because of the longer curve at the front end of the andiron, not only do the logs placed thereon tend always to move along to the right position to be ignited, but the chosen curvature makes it necessary that the front end of the andiron be higher than the rear, thus forming a larger opening for the entry of air below the logs, which opening is of gradually decreasing depth toward the rear of the passageway, formed by the logs 15 on the andirons, thus creating greater suction of air below and between the logs.

It will be understood that the showing of the fireplace is intended merely as a conventional illustration of a well known fireplace construction, and since it is not a part of the invention no attempt has been made to describe it in detail.

Having thus described my invention, what I claim is:

1. An andiron provided longitudinally at the bottom and from the front end to the rear end thereof with a flat unbroken base adapted to lie throughout its length upon a hearth, said andiron being provided along the top and throughout the length thereof with an unbroken curved log supporting surface extending upwardly from a point between said front and rear ends to both of said ends.

2. An andiron provided longitudinally at the bottom and from the front end to the rear end thereof with a flat unbroken base adapted to lie throughout its length upon a hearth, said base having laterally projecting feet on opposite sides thereof to rest upon said hearth and said andiron being provided along the top and throughout the length thereof with an unbroken curved log supporting surface extending upwardly from a point between said front and rear ends to both of said ends.

3. An andiron comprising a single elongated member provided at the bottom and from the front end to the rear end thereof with a flat unbroken base adapted to lie throughout its length upon a hearth, said base having laterally projecting feet at opposite sides thereof to rest upon said hearth, the member being provided along the top and throughout the length thereof with an unbroken log supporting surface formed in curves of different amplitudes extending upwardly from a point nearer said rear end than said front end to both of said ends, said member being provided therealong between said base and said log supporting surface with spaced openings for circulation of air therethrough.

4. An andiron comprising a single elongated member adapted to be placed upon a hearth and having laterally projecting feet to rest thereon, the member being provided along the top and from the front end to the rear end thereof with an unbroken log supporting surface formed in curves of different amplitudes extending upwardly from a point nearer said rear end than said front end to both of said ends, said member being provided therealong with spaced openings for circulation of air therethrough.

5. An andiron comprising an integral elongated member adapted to be held in self-sustained upright position upon a hearth, the member being provided along the top from front to rear with an unbroken log supporting surface formed in curves of different radii extending upwardly from a point between said front and rear ends to both of said ends.

6. An andiron comprising a single integral elongated member adapted to be held in self-sustained upright position upon a hearth, the member having a front end higher than its rear end and provided along the top thereof with an unbroken log supporting surface formed in front and rear arcs of different radii extending upwardly from a point nearer the rear end than the front end of said member toward both of said ends.

7. An andiron comprising a single integral elongated member adapted to be held in self-sustained upright position upon a hearth and having feet to rest on the hearth, the member being provided along the top and throughout the length thereof with an unbroken curved log supporting surface extending upwardly from a point between the front and rear ends of said member to both of said ends.

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