

**No. 717,007.**

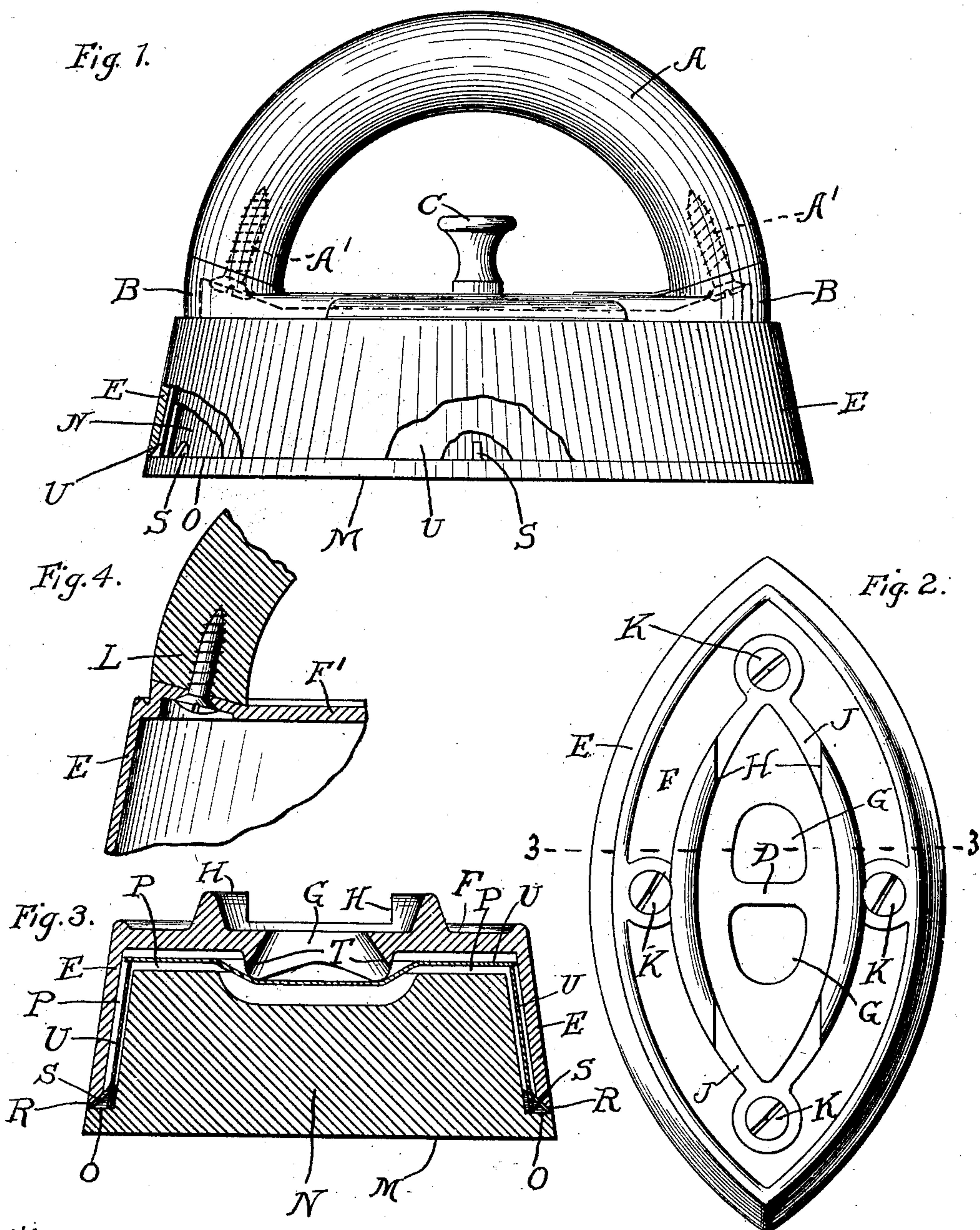
**Patented Dec. 30, 1902.**

**J. F. KINGWILL.**

**SAD IRON.**

(Application filed Mar. 12, 1902.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN F. KINGWILL, OF CHICAGO, ILLINOIS.

## SAD-IRON.

SPECIFICATION forming part of Letters Patent No. 717,007, dated December 30, 1902.

Application filed March 12, 1902. Serial No. 97,818. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN F. KINGWILL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Sad-Irons, of which the following is a specification.

My invention relates to irons or sad-irons, and has for its object to provide a new and improved sad-iron with or without a removable handle and insulated, so as to retain in the bottom of the iron the greatest amount of heat and so as that the bottom of the iron may be heated in a quick and easy manner.

My invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a side view of an iron of my invention with the removable handle and parts broken away. Fig. 2 is a plan view of the iron with the handle removed. Fig. 3 is a cross-section on line 3 3, Fig. 2. Fig. 4 is a detail longitudinal section through a modification.

Like parts are indicated by the same letter in all the figures.

A is the handle, preferably of an arc-shaped form and in one instance provided with the lower portion B, which may be secured to the handle at each end by the screws A' A' (indicated in dotted lines) and which is provided with the thumb-piece C on the device, adapted to engage the locking portion D on the top of the iron. This construction is dispensed with in the alternative form hereinafter described.

E E are the sides of the upper portion of the iron, and they are connected by the top portion F, so as to make an upper shell or covering for the bottom portion of the iron. The part F may be open at G G and may be provided with the upwardly-extending flanges H H, if desired. These flanges are separated at J J to make room for the ends of the handle A, or rather for the lower piece B, which in this case forms, as it were, part of the handle or the bridge of its arch. This upper portion, comprising the sides E and top F, is held in position by the screws K K, though some of them may be omitted. I may use either the side or the end screws. In the form shown in Fig. 4 this top portion F' is modified by the omission of the flanges H and the filling up of the apertures G G. Here the handle

is secured directly to the portion F by the screws L, and in this case the end screws K K would be omitted, the handle and upper portion, comprising the sides E and top F, being held to the bottom portion by the side screws K K.

M is the lower smooth ironing-face, formed on the body N, which is enlarged and projects upwardly within the part composed of the two portions E and F. This body portion N is shaped with regard to the parts E and F so as to form a bearing-ledge O for the lower end of the part E and to leave a chamber P between the body and shell at all other places. The lower edge of the part E is narrowed down at R, so as to make a thin or knife edge which bears upon this ledge O.

S S are a series of lugs which project outwardly at the junction of the body portion N and the ledge O, and they serve to center the part E or bring it into proper position. Around the apertures G are preferably formed downwardly-projecting edges T.

U U indicate the various members of an insulating-sheath, preferably of asbestos, which is placed in the chamber P between the body N and the parts E F.

I do not wish to be limited to the particular size, proportion, form, or arrangement of the several parts, as they may obviously be greatly altered without departing from the spirit of my invention.

The use and operation of my invention are as follows: With an iron so constructed there is a complete insulating air-chamber between the two parts of the iron. The downwardly-projecting edge R makes the smallest practicable contact between the unheated and heated portions of the iron, thus tending to keep the heat in the lower portion, where it belongs. On the other hand, the downwardly-projecting edge T tends to prevent the heated air in the chamber P from rising upwardly against the hand of the user. In other words, a sort of dead-air chamber is provided between the two portions of the iron, and a very slight contact exists between them.

The advantages of this device are greatly increased by the introduction of insulating material, and particularly by the introduction of insulating material which, as suggested, lies in this chamber, covers the open-



ings G G on the inside when and if such are employed, passes down between the sides, and is so arranged that it lies freely in the chamber and not in close contact with either metal surface, and particularly with the heated metal surface. If asbestos be firmly pressed against a heated surface, it appears to lose a great deal of its insulating power and itself becomes heated and radiates or transmits heat; but if it be laid loosely upon or near the heated surface this action is greatly diminished.

In the form shown in Figs. 1, 2, and 3 the handle is removable; but in the device shown in Fig. 4 this is not the case, and the handle remains permanently a part of the iron.

I claim—

1. A sad-iron consisting of a lower smoothing portion, with an upper body on such portion, an outer shell, shaped somewhat like but larger than the body, and attached to the same so as to leave a free air-space between the body and the shell, a handle and a shell-like portion of insulating material shaped

somewhat like such air-space but thinner than the same and suspended within such air-space so as not to be pressed against either surface thereof.

2. A sad-iron consisting of a lower smoothing portion, with an upper body on such portion, an outer shell, shaped somewhat like but larger than the body, and attached to the same so as to leave a free air-space between the body and the shell, a handle with attaching devices, holes in the shell into which such attaching devices are inserted, a downwardly-depending flange within the shell about the holes to prevent the hot air in the air-space from passing out through such holes, and a shell-like portion of insulating material shaped somewhat like such air-space but thinner than the same and suspended within such air-space so as not to be pressed against either surface thereof.

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Witnesses:

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