(No Model.)

H. E. RUSSELL, Jr.

PIN FOR THE HINGES OF STOVE DOORS.

No. 431,078. Patented July 1, 1890.

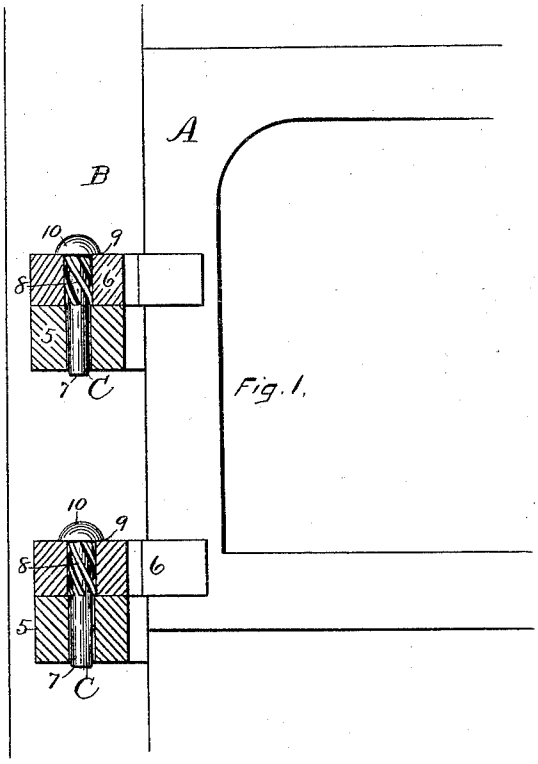


Fig. 1.

Fig. 2.

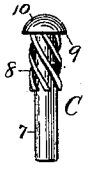
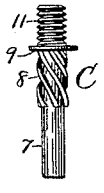


Fig. 3.



Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

HENRY E. RUSSELL, JR., OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE RUSSELL & ERWIN MANUFACTURING COMPANY, OF SAME PLACE.

PIN FOR THE HINGES OF STOVE-DOORS.

SPECIFICATION forming part of Letters Patent No. 431,078, dated July 1, 1890.

Application filed March 25, 1890. Serial No. 345,207. (No model.)

To all whom it may concern:

Be it known that I, HENRY E. RUSSELL, Jr., a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Pins for the Hinges of Stove-Doors, of which the following is a specification.

My invention relates to improvements in pins for the hinges of stove-doors; and the objects of my improvement are increased efficiency of the article, especially in holding the pin in place, and convenience and economy of production.

In the accompanying drawings, Figure 1 is a front elevation of a portion of a stove and stove-door to which my hinge-pin is applied, the knuckles of the hinge being shown in vertical section. Fig. 2 is a side elevation of the pin detached. Fig. 3 is a transverse section thereof through the ribbed portion, and Fig. 4 is a side elevation of said pin with a screw-shank for receiving an ornamental head.

A designates a portion of a door, and B a portion of a stove or frame to which said door is hung. The part B is provided with lugs which form the lower knuckles 5 of the door-hinge, and the door A is provided with lugs which form the upper knuckles 6 of said hinge. These knuckles are drilled through their centers to form plain holes to receive the hinge-pin C. This pin is provided with a plain cylindrical portion 7 for loosely fitting the lower knuckles 5, and with a larger cylindrical portion having spiral ribs 8, which extend longitudinally from the plain cylindrical portion 7 to the shoulder 9, that rests upon the top of the upper knuckles 6. Any suitable head may be formed above this shoulder—as, for instance, the head 10, which is integral with the hinge-pin; or, if desired, the part of the pin above the shoulder 9 may be provided with a screw-threaded shank 11, Fig. 4, upon which to place a separately-formed and larger ornamental head. The ribs 8, which extend longitudinally in a spiral direction, are parallel to each other—that is, they are a uniform distance apart. By being spirally arranged and not parallel to the axis of the pin they project from the ribbed portion thereof, so as to bear upon the hole in the upper knuckles throughout its entire circle; or, in other words, when the several ribs are viewed in end view, as in the section Fig. 3, their profile describes a complete circle. This ribbed portion of the pin is designed to be a little larger in diameter than the hole in the upper knuckle, so that when the pin is driven into said knuckle the ribs may yield or become compressed or battered a little, sufficiently to permit the pin to be driven into said knuckle without danger of bursting it open, and at the same time firm enough to make it securely retain its place in said knuckle.

A hinge-pin having three or more ridges extending parallel to the axis of the pin for a like use in a similar hinge is old, and hereby disclaimed.

In my hinge, by making the raised ribs occupy the complete circle of the pin-hole instead of touching only at certain points therein, I more firmly secure the pin and support it in all directions and more certainly insure that it will be properly centered when driven therein. By making the ribs extend spirally instead of parallel to the axis they may be conveniently formed by rolling in dies similar to those employed for rolling screw-threads, and when a threaded shank is to be made, as in Fig. 4, the spiral ribs and the thread may be both swaged at one operation, thereby reducing the expense.

I claim as my invention—

1. The herein-described hinge-pin for stove-doors, consisting of the plain cylindrical portion for the lower knuckle and a ribbed and shouldered portion for the upper knuckle, having its ribs arranged on non-parallel lines to the axis of the pin to occupy the complete circle of the pin-hole, substantially as described, and for the purpose specified.

2. The combination of the upper and lower

knuckles of the door-hinge, each having a plain hole, with the hinge-pin C, having the plain cylindrical portion for the lower knuckle, and a ribbed and shouldered portion for the upper knuckle, the ribs of which are on non-parallel lines with the axis of the pin, whereby said ribbed portion bears upon every point in the circle forming the pintle-hole of the upper knuckle, substantially as described, and for the purpose specified.

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Witnesses:
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