

(No Model.)

J. K. CLARK.
HINGE.

No. 466,267.

Patented Dec. 29, 1891.

Fig. 1.

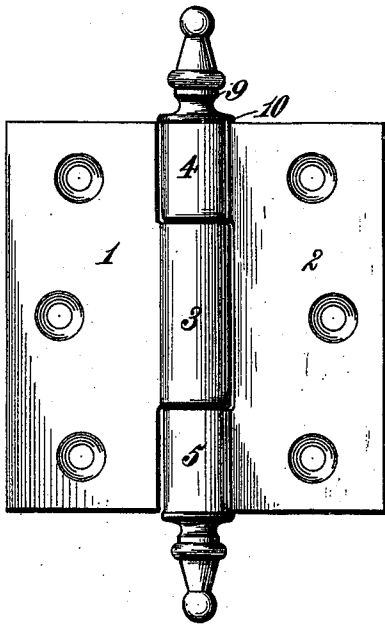


Fig. 2.

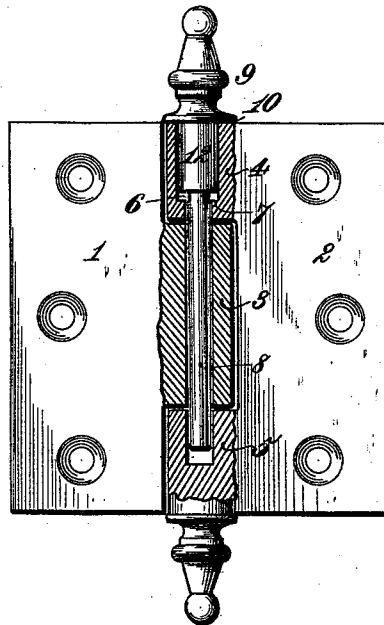
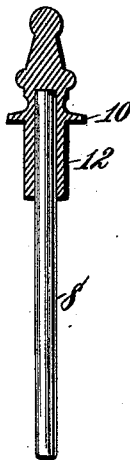


Fig. 3.



Witnesses:
Robert Emmett.
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UNITED STATES PATENT OFFICE.

JOHN K. CLARK, OF BUFFALO, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO MARY K. CLARK, OF SAME PLACE.

HINGE.

SPECIFICATION forming part of Letters Patent No. 466,267, dated December 29, 1891.

Application filed April 22, 1891. Serial No. 390,000. (No model.)

To all whom it may concern:

Be it known that I, JOHN K. CLARK, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Door-Butt Hinges, of which the following is a specification.

In the manufacture of door-butt hinges the hinge-leaves are articulated together through the medium of a pintle or hinge-pin having at one end an ornamental tip, and in most hinges of this class the pintle is composed of a wrought-iron pin or wire, upon one extremity of which the ornamental tip is cast. To prevent the separation of the tip from the wrought-iron pin or wire, the latter is usually flattened or pinched prior to casting the tip thereupon; but frequently, if not always, the cast-metal tip is loose and can move on the pin or wire, while the tip is extremely liable to be pulled off or displaced. The looseness of the cast-iron tip and its liability to become detached are serious objections in this class of hinges, and the disadvantages are present in all ordinary hinges comprising a hinge pin or pintle composed of wrought-iron upon which is cast an ornamental tip.

The objects of my invention are to provide a novel door-butt hinge; to provide a novel hinge pin or pintle of wrought-iron with an ornamental cast-iron tip, which is immovably fixed upon the pin or wire and by an extended bearing thereupon is prevented from movement or displacement, and to avoid flattening or pinching the wrought-iron pin or wire preparatory to casting the ornamental tip thereupon.

To accomplish all these objects my invention consists in the features of construction and the combination or arrangement of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a plan view of a door-butt hinge embodying my invention. Fig. 2 is a similar view, partly in section, to illustrate the pintle and the sockets in the knuckles of the hinge-leaves; and Fig. 3 is a longitudinal sectional view of the pintle or hinge-pin.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, wherein—

The numerals 1 and 2 indicate the hinge-leaves, provided, respectively, with the central knuckle 3 and the upper and lower knuckles 4 and 5, which are articulated or pivoted together through the medium of a pintle or hinge-pin. The sockets or orifices in the knuckles 3 and 5 are of uniform diameter, while the uppermost knuckle 4 is provided with a central socket or orifice 6, of greater diameter than the sockets or orifices in the knuckles 3 and 5. The enlarged cylindrical socket or orifice 6 may extend entirely through the knuckle 4; but I prefer to extend such socket or orifice partially through the knuckle for the purpose of producing a shoulder or ledge 7, and thereby leave the remaining portion of the orifice in the knuckle of a diameter coequal with the diameter of the sockets or orifices in the knuckles 3 and 5.

The hinge-pintle is composed of a wrought-iron wire or pin 8, upon one extremity of which is cast the ornamental tip 9, and for the purpose of providing an extended bearing-contact between the tip and the wire or pin without causing the tip to project unduly above the hinge I form the tip during the process of casting with a collar 10 and a cylindrical sleeve or hub 12, extending from the under side of the collar and of equal diameter throughout its extent for the purpose of accurately fitting the enlarged socket or orifice 6 in the uppermost knuckle 4 of the hinge-leaf 2.

By my improved construction an extended bearing-contact is provided between the cast-iron tip and the wrought-iron pin or wire, whereby the parts become practically a single piece, and by reason of the elongated sleeve or hub cast with the ornamental tip upon the wrought-iron pin or wire I am enabled to entirely avoid nicking, pinching, or flattening the pin or wire preparatory to casting the tip thereupon, while the extended bearing-contact provided by the sleeve secures an immovable connection between the tip and the

pin, which will not become loose and which prevents the separation of the tip from the pin.

5 The sleeve-extension of the ornamental tip being of a diameter less than the main body of the tip itself and being especially constructed to enter the enlarged socket or orifice 6 in one of the knuckles of the hinge enables me to provide the extended bearing-contact 10 between the tip and the pin without leaving the tip projecting unduly above the hinge-leaves, which would be the case were the tip merely lengthened to enlarge its bearing-contact with the pin.

15 By avoiding the necessity of nicking, pinching, or flattening the wrought-iron pin or wire preparatory to casting the ornamental tip thereupon I reduce the cost of manufacture to some extent, while the completed article 20 is superior to the ordinary door-butt hinge now in the market.

In the ordinary manufacture of pintles or hinge-pins for door-butt hinges the quantity of cast-iron is so small around the wrought- 25 iron wire or pin that many of the tips "blow" in casting, and consequently such tips are imperfect and must be removed from the wire or pin for the reuse of the latter in producing new tips. This is a serious objection, which 30 I entirely avoid by my improved construction, wherein a considerable quantity of cast-

iron extends from the ornamental tip along the length of the wrought-iron pin or wire in the form of a cylindrical sleeve or hub.

By avoiding the flattening or pinching of 35 the wire pin at one extremity the molder is enabled to produce a larger number of tipped pins in a given time, since it is not essential to use care in laying the wire pin in a certain position within the mold. By my invention 40 it is immaterial which end of the pin is laid in the mold to receive the tip, whereas in the usual construction the flattened or pinched end of the pin must occupy a definite position to receive the tip.

45 Having thus described my invention, what I claim is—

A hinge having its hinge-leaves articulated together by a pintle consisting of a pin or wire, and an ornamental tip cast upon one 50 extremity of the pin or wire and formed with a cylindrical sleeve projecting from the base of the tip and extending longitudinally along the length of the pin or wire, substantially as described.

55 In testimony whereof I have hereunto set my hand and affixed my seal in presence of two subscribing witnesses.

JOHN K. CLARK. [L. S.]

Witnesses:

ALBERT HENNINGHAM,
GEORGE L. HERGER.