(Model.)

L. BOMMER.

SPRING HINGE.

No. 348,312. Patented Aug. 31, 1886.

Fig. 1.

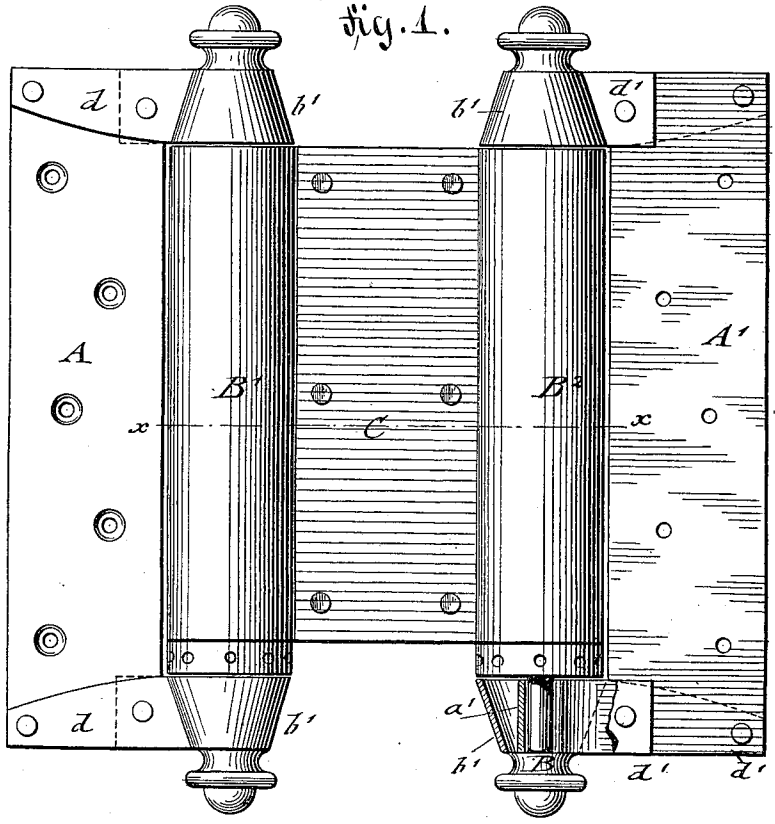


Fig. 2.

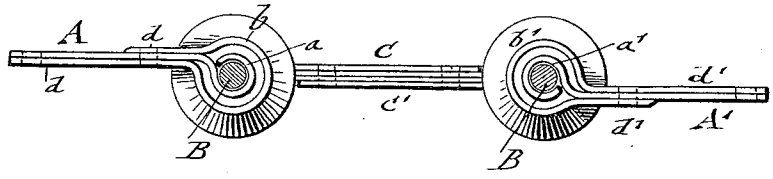
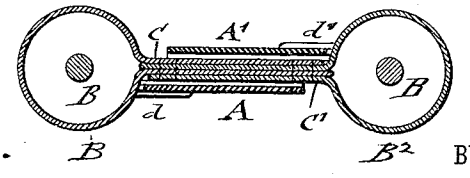


Fig. 3.



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LORENZ BOMMER, OF NEW YORK, N. Y.

SPRING-HINGE.

SPECIFICATION forming part of Letters Patent No. 348,312, dated August 31, 1886.

Application filed December 30, 1885. Serial No. 187,089. (Model.)

To all whom it may concern:

Be it known that I, LORENZ BOMMER, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Spring-Hinges, of which the following is a specification.

This invention has reference to certain improvements in the double-acting spring-hinges for which Letters Patent have been granted to me heretofore, No. 228,304, and dated June 1, 1880, the improvements being designed with a view to dispense entirely with cast metal in the construction of the hinge and substitute therefor wrought-iron, steel, or other sheet metal, whereby the hinge becomes lighter, stronger, and less liable to be exposed to breaking or cracking in cold weather; and the invention consists of a spring-hinge, the pintles of which are supported in pintle-sockets which are formed of interior sleeves made integral with the leaves, and of exterior caps that are riveted or otherwise fastened by extension-straps to the leaves.

The invention consists, secondly, of a spring-hinge, in which the springs are inclosed by a sheet-metal barrel, the abutting ends of which are radially extended so as to form extension-plates, that are riveted to the extension-plates of the second barrel of the hinge, so as to form the connecting-plate of the same.

In the accompanying drawings, Figure 1 represents a side elevation, partly in section, of my improved spring-hinge. Fig. 2 is a plan of the same with the pintle ends removed; and Fig. 3 is a horizontal section of the hinge, taken on line *x x*, Fig. 1, and showing the leaves folded up on the connecting-plate of the pintles.

Similar letters of reference indicate corresponding parts.

A A′ in the drawings represent the leaves of my improved double-acting spring-hinge, which leaves are connected, respectively, to the door and the jamb of the door-casing. The leaves A A′ are made of wrought-iron, steel, or other metal of suitable thickness. They are provided at their upper and lower ends with sleeves *a a′*, which are made integral therewith, and which form pintle-sockets, by which the pintles B are supported in position. The sockets *a a′* are inclosed by exterior caps, *b b′*, of wrought-iron, steel, or other metal, which are riveted, screwed, or otherwise fastened by exterior straps, *d d′*, to the leaves A A′. The straps *d d′* are extended at one side to the outer edge of the leaves A A′, while at the opposite side they can be made shorter, as shown in Fig. 1. The caps *b b′* are preferably made of conical shape, and at their base of a diameter equal to that of the sheet-metal barrels B′ B², that inclose the spiral springs, by which the spring-action is given to the door. The barrels B′ B², instead of being riveted to or cast in one piece with the connecting-plate, are provided at their abutting ends with radial extending plates C C′, which are made to overlap each other, so as to form, when riveted or otherwise fastened together, a connecting-plate of four layers of sheet metal, which possess greater strength and durability than the cast-metal connecting-plates heretofore in use. By this construction no part of the spring-hinge has to be made of cast metal; but the entire hinge can be made of wrought-iron, steel, or other sheet metal, which has the advantage that it is stronger than a cast-iron hinge, besides being lighter, cheaper, and more durable.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A spring-hinge the leaves of which are made of wrought-iron, steel, or other sheet metal, said leaves being provided with pintle-sockets integral therewith and with inclosing-caps attached by extension-straps to the leaves, substantially as set forth.

2. In a double-acting spring-hinge, the sheet-metal barrels inclosing the springs having extension-plates bent outwardly at their abutting ends, said extension-plates overlapping each other and being riveted or otherwise fastened together, so as to form the connecting-plate of the hinge, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

LORENZ BOMMER.

Witnesses:
PAUL GEOPEL,
CARL KARP.