

*Sterling Bonsall,
Louis^{sr} Hillebrand.*

Imp^t in Bell Pulls.

PATENTED

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Figure 1.

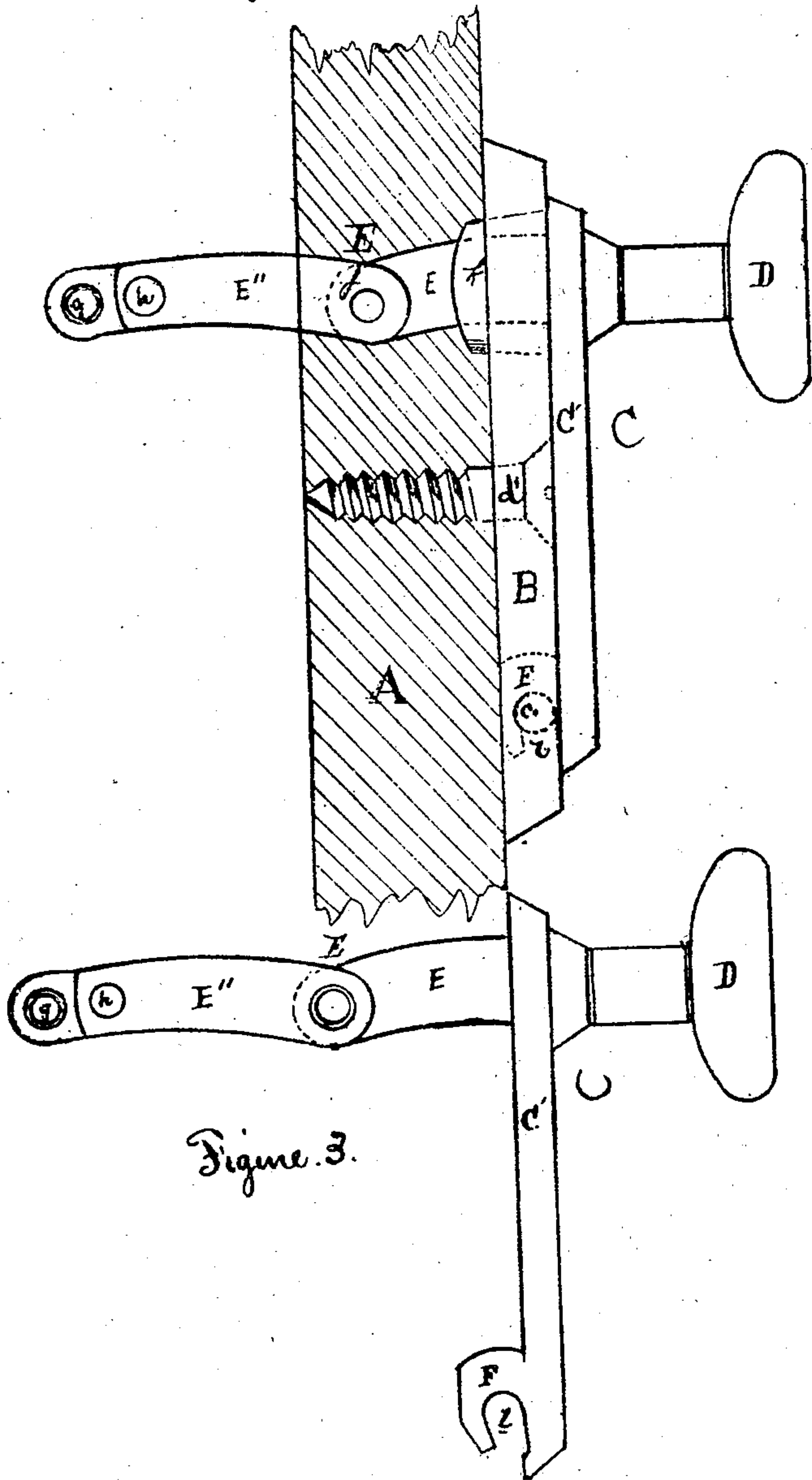


Figure 2.

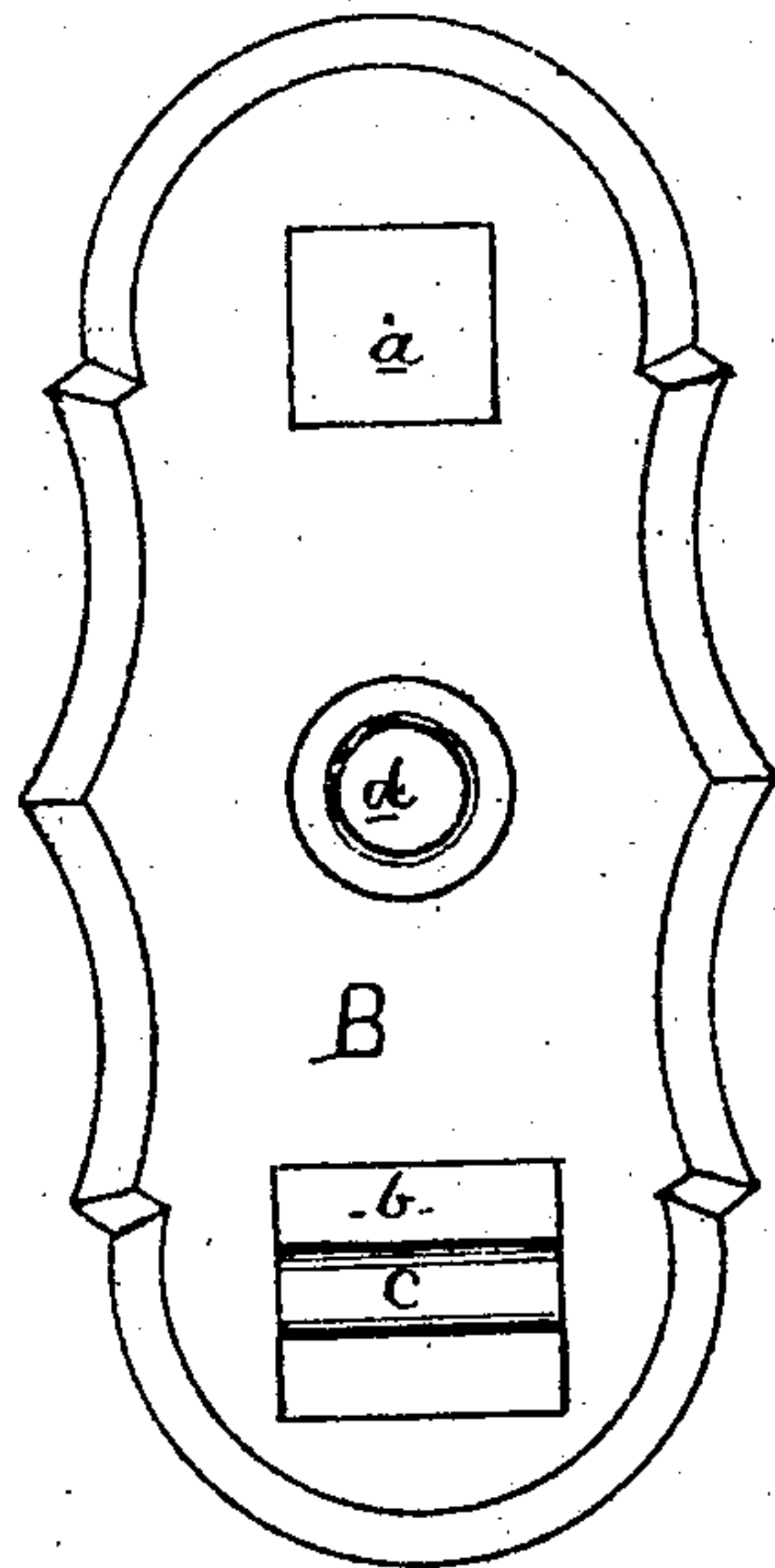


Figure 3.

Witnesses:
Jacob Henry

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United States Patent Office.

STERLING BONSALE AND LOUIS HILLEBRAND, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 75,118, dated March 3, 1868.

IMPROVEMENT IN BELL-PULLS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, STERLING BONSALE and LOUIS HILLEBRAND, both of city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Bell-Pulls; and we do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which our invention appertains to fully understand and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of the device, illustrating our invention.

Figures 2 and 3 are views of detached parts thereof.

Similar letters of reference indicate corresponding parts in the several figures.

Our invention is a novel bell-pull for door-bells, houses, and other purposes; and consists in so constructing the same that it shall operate with an oblique or downwardly-curved motion.

It is obvious, in the present form of door-bell pulls, in which the same are drawn out horizontally, that the operator must be able to reach up and exert his strength horizontally, or in the line of motion of the tongue. This requires some strength in an awkward position. Ladies and weak persons are almost unable to, and children cannot use them. We have therefore sought to obviate these difficulties by our invention, as will be herein-after more fully described.

In the drawings, A represents a section of a door-jamb, wall, or any place to which a bell-pull is to be applied. B is a plate, constructed of metal or other suitable material, and of proper form. Near one end of this plate there is formed an opening, *a*, of angular or rounded shape, and at the opposite end is also formed a slot, *b*, across which is arranged a pintle, *c*, which consists of a wire or rod, so placed in the mould as to be cast into and fastened to the sides of the slot or aperture. Through the middle of the plate is an aperture, *d*, receiving a screw, *d'*, by which the plate is fastened to the jamb of the door or the wall. C represents the handle, consisting of a bar or plate, *C'*, to the outer side of which is secured an arm, terminating in a suitable knob or button, D, which may represent the head and neck of a tiger, lion, or other animal, or be otherwise ornamental in form, and is intended for grasping purposes, and may be attached either to the end or middle of the bar. To the inner side of the bar *C'* there is placed a tongue, E, consisting of two parts, one part, *E'*, of which is firmly connected to the bar *C'*, and is slightly curved in a downward direction. The other part, *E''*, is also curved, and is hinged or jointed, at one end, to the part *E'*, as shown at *f*, figs. 1 and 3, and its other end terminates in a hook or eye, *g*, to which the bell-wire is attached, and near this end are placed lugs or stop-pins, *h*, which prevent the tongue E from being entirely withdrawn through the opening *a* in the plate B. The inner ends of the opening *a* are continued into a flange, or are formed with a boss, *k*, which shall enter a corresponding opening in the door or wall A, and serve to prevent the turning of the plate B, and also to guide the tongue E in its forward and backward motions. To the lower part of the inner side of the bar *C'* there projects an arm, F, consisting of a piece of metal, rounded on the top, and its lower side so cut away that there shall be formed, with the bar *C'*, an open slot or fork, *l*. The bottom edge of the bar *C'* is bevelled, so as to readily enter the slot *b* of the plate B. The open slot or fork *l* will straddle the pintle or bar *c* in such a manner that when the pull is in operation it shall act as a hinge. The fork *l* may straddle the lower edge of the slot *b*, instead of the pintle, and readily act as a hinge, as has been previously described, but we prefer to use the pintle, as it makes a stronger hinge and better finish. Placing the fork over the bar or pintle, and fastening the joint *f*, the bar *C'* conceals the head of the screw *d'*, through the aperture *d*, and prevents the removal of the plate B. By attaching the usual wire or chain to the hook or eye *g* of the part *E''*, we complete a pull which, upon being operated, moves in an oblique or curved downward direction, at the same time allowing the part *E''* to move horizontally, and thus draw the wire in the same line. The power being applied to the handle in a downward direction, gives greater facility and ease of operation.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The construction of a plate, B, with the opening *a* at the upper end, and boss, *k*, at the rear, the slot *b* at the lower end, with a pintle, *c*, cast into and across the middle thereof, and with the screw-hole *d*, substantially as described for the purpose specified.

2. The construction of a handle, C, with a forked end at the lower part, a tongue, E', at the inner side of the upper end, and a knob or projection, D, on the outer side of the upper end, substantially as described for the purpose specified.

3. The combination of plate B and handle C with the bar E, so fastened at *f* as to make the slot *l*, resting over the pintle *c*, and restrained by the plate B, act as a hinge, with the fulcrum inside of the perpendicular of the lever, substantially as described.

To the above we have signed our names, this fourth day of December, 1867.

STERLING BONSALE,
LOUIS HILLEBRAND.

Witnesses:

WM. A. WIEDERSHEIM,
E. H. BAILEY.