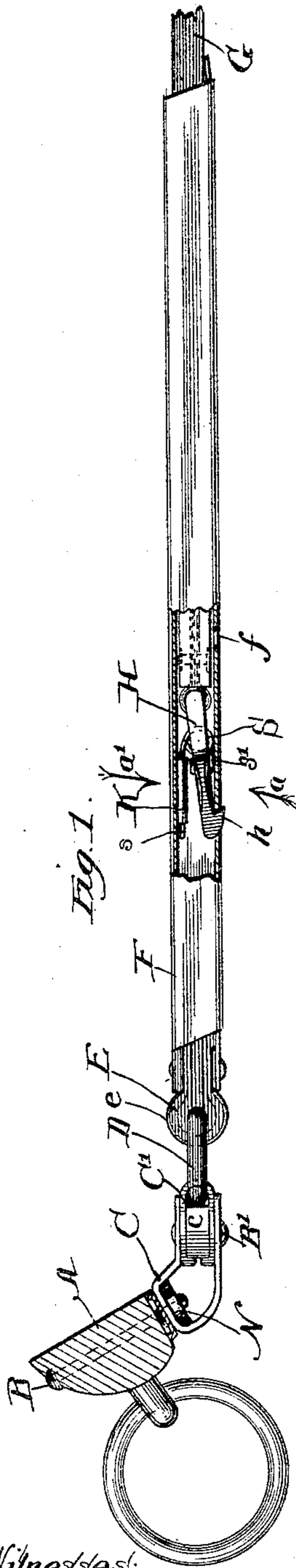


(No Model.)

S. E. BRICKNELL.
HAME TUG.

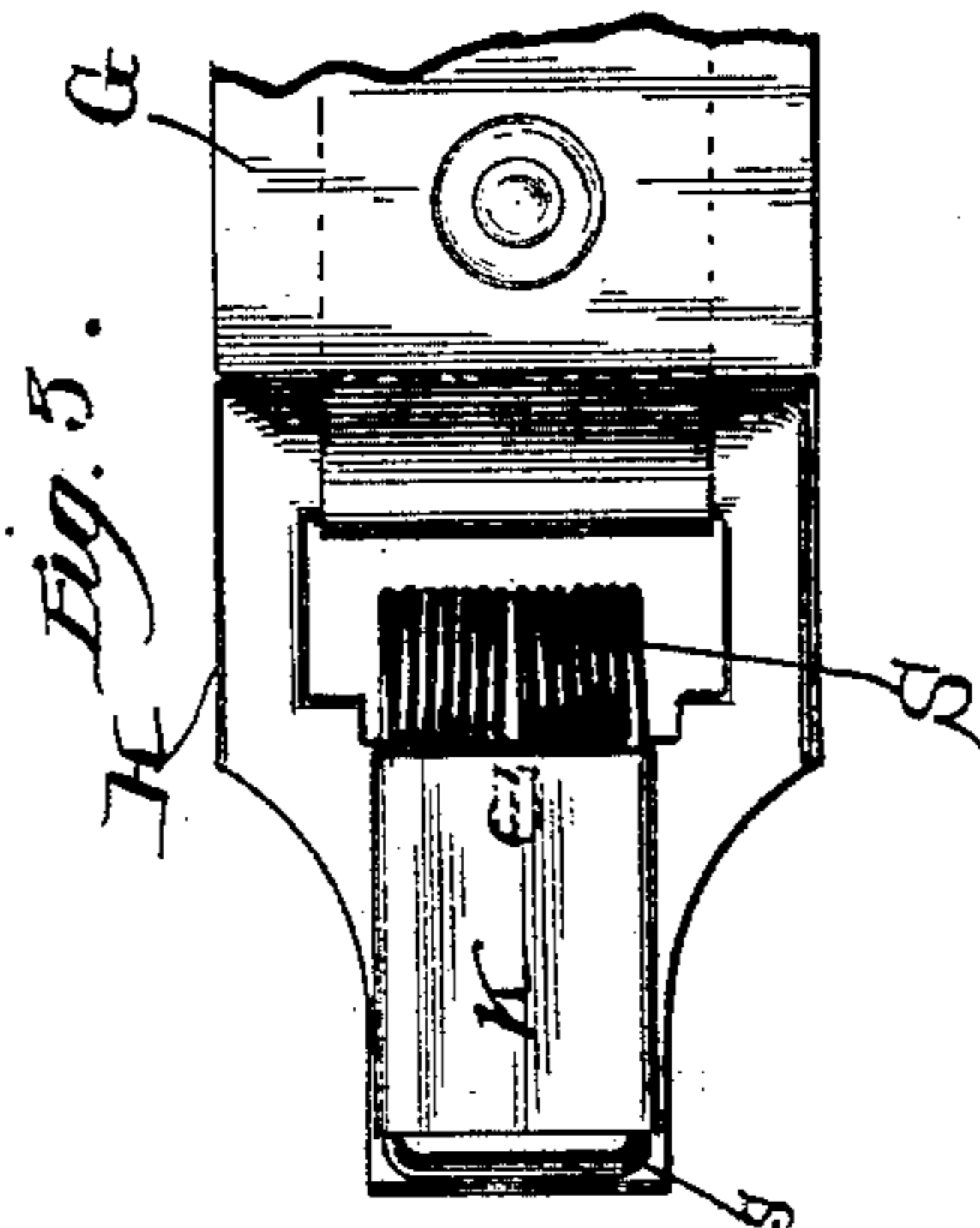
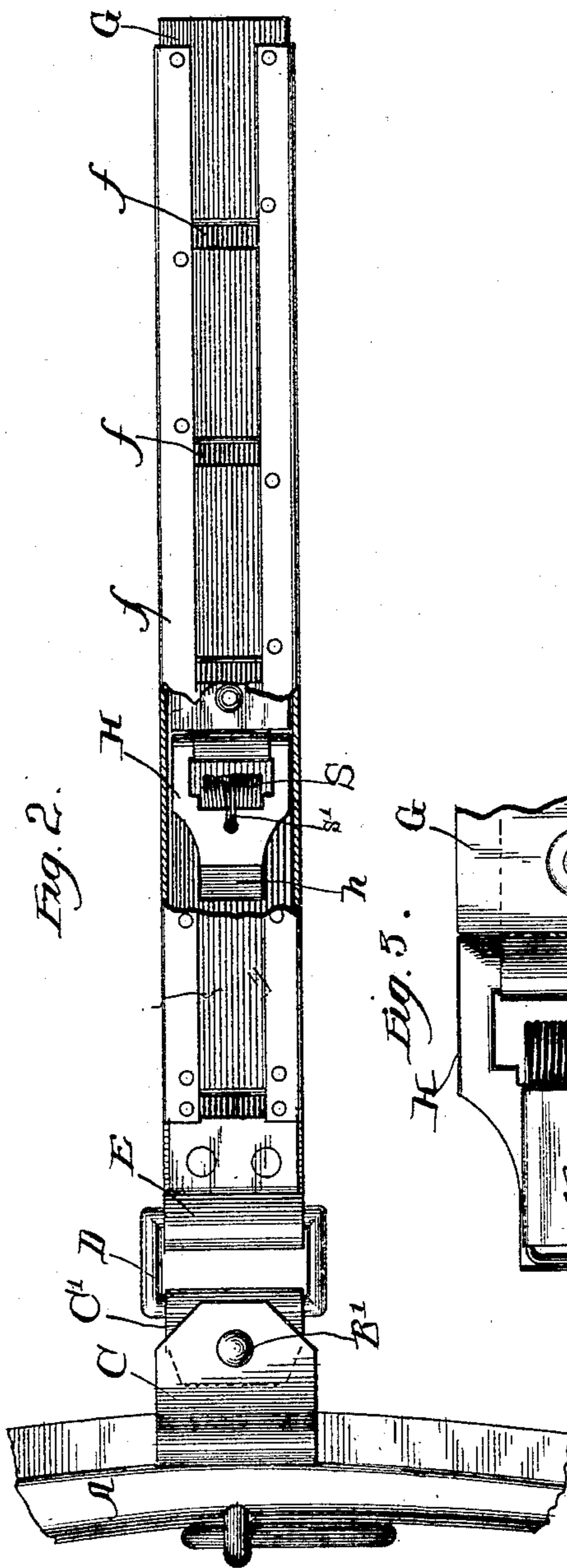
No. 454,515.

Patented June 23, 1891.



Witnesses:

Charles Shervey,
August Lundman.



Samuel E. Bricknell
Inventor:

By Miles, Green & Barker
Attorneys.

UNITED STATES PATENT OFFICE.

SAMUEL E. BRICKNELL, OF OREGON, ILLINOIS.

HAME-TUG.

SPECIFICATION forming part of Letters Patent No. 454,515, dated June 23, 1891.

Application filed October 29, 1890. Serial No. 369,709. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL E. BRICKNELL, a citizen of the United States of America, residing at Oregon, in the county of Ogle and State of Illinois, have invented certain new and useful Improvements in Hame-Tugs, of which the following is a specification.

My invention relates to improvements in hame-tugs, and is fully described and explained in this specification and shown in the accompanying drawings, in which—

Figure 1 is a top plan of my improved hame-tug in operative connection with the hame. Fig. 2 is a front elevation thereof, the view being in the direction indicated by the arrow *a* in Fig. 1; and Fig. 3 is an enlarged elevation of the hook attached to the end of the tug, the view being in the direction indicated by the arrow *a'* in Fig. 1.

In the views, A is a hame of ordinary construction, and C is a clasp, preferably made up of a single piece of metal cast or bent into the desired form, fastened to the edge of the hame at the proper point, and secured by means of bolts B, passing through the hame and fastened by means of nuts N. Each of the bolts is provided at the end opposite the nut with a slotted head adapted to be operated by a screw-driver, and nuts and clasp are so formed with reference to each other that the nuts are seated in the space at the base of the clasp and thereby secured against rotation. In the front end of the clasp C and between the ends thereof is pivoted a second clasp C', also preferably made up of a single piece of metal, its ends being held at the proper distance of separation by means of a block *c*, interposed between them. A bolt B' passes through the ends of the two clasps C C' and forms a pivot, on which the clasp C' turns freely with reference to the clasp C, which is stationary. A metal loop D has one of its parallel members pivoted in the clasp C', the opposite member being pivoted in the loop E, whose free end is securely fastened to a box F, whose use is hereinafter explained. The loop E is preferably made up of a leather strap or straps encircling the corresponding member of the metal loop D, the strap being itself encircled and protected by a band of sheet metal *e* bent into the proper shape. This

construction gives strength and durability, and at the same time insures the easy working of the parts, as the leather strap forming part of the loop E always turns freely and smoothly about the member of the loop D which it encircles.

The outer vertical face of the box F is formed with a series of openings *f* of such size as to receive the point *h* of the hook H, which is securely fastened to the rear end of a tug or trace G, the hook and tug being of such shape as to slide freely from end to end of the box F. The hook is secured to the tug by means of a loop substantially the same as the loop E, which connects the box with the loop D, as hereinbefore set forth, the object of the fastening being to secure the hook permanently to the tug or trace, and at the same time to allow the swinging of the hook upon its connection with the trace.

To the hook H, near its point of connection with the tug, is fastened a spring S, preferably formed of a single piece of wire bent at its center to form a loop *s* and coiled in two spirals, whose ends *s'* lie at the center of the spring and are passed through and fastened to the hook. The central portion *s* of the spring, which projects a considerable distance from the coil and lies directly back of the hook H, is provided with a cover or case K, which prevents spreading of the spring and forms a smooth surface adapted to move freely within the box F. This cover or case K lying back of the hook presses constantly against the inner wall of the box F when in operative position and forces the point *h* of the hook against the opposite wall of the box. The pressure thus exerted upon the point of the hook tends to throw it into one of the openings *f* as the hook is moved along the box, and it is evident that the projection of the hook into either of these openings must form a fastening tending to hold the hook and tug in place and prevent its accidental movement in either direction with reference to the box. In order to make this fastening as secure as possible against any force tending to draw the tug and hook away from the hame, the working-edge of the hook is cut under, as illustrated in the drawings, and the front edge of each of the openings *f* in the front wall of

the box is correspondingly beveled to enter the notch in the hook. By means of this construction the draft upon the tug only holds the hook more firmly in position and effectually prevents any possibility of the slipping inward of the hook and its consequent detachment from the box while under working strain. The outer face of the end *h* of the hook is beveled in approximately the same direction as the inner edge or notched portion of the hook, and the corresponding edge of each of the openings *f* is preferably beveled in the same direction, so that the tug and hook may be pressed toward the hame and will pass from opening to opening in the box F without the trouble of pressing the point of the hook inward in order to free it from each of the openings.

The object and operation of this invention are evident from the illustration and description. The spring S tends to separate the hook H and the case or cover K on the end of the spring, and when the tug and hook are detached from the box the hook and spring must be pressed together in order to insert them in the end of the box. When once inserted, the hook may be moved toward the hame by pressing the tug in that direction, and as the hook moves along the box its point will be thrown outward as it reaches into one of the openings *f* in the wall of the box. The hook may evidently be moved any desired distance toward the hame and secured in position by means of any one of the openings *f* in the box, and when so secured the box, the hook, and the tug form for all practical purposes a single structure. If at any time it is desired to lengthen the tug, this can be effected by pressing inward the point of the hook until it is free from the opening in the wall of the box and then drawing the hook away from the hame such distance as may be desired.

Having now described and explained my

invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the hame A, the box F, the tug G, and means for adjustably securing the tug in the box, of the clasp C, fastened to the hame, the clasp C', pivoted to the clasp C and free to swing in a vertical plane, and the loop D, connecting the box F and clasp C' and free to swing in a horizontal plane, substantially as and for the purpose set forth.

2. The combination, with the hame A and box F, of the clasp C, the bolts B, the nuts N, seated in the clasp C and secured against rotation thereby, and the clasp C' and loop D, connecting the box F and the clasp C, substantially as and for the purpose set forth.

3. The combination, with the hame A and the box F, pivotally connected therewith and formed with the openings *f* in its outer wall, of the tug G, having the hook H fastened to its end, and the spring S, having one end secured to the hook and its opposite end bearing upon the inner wall of the box substantially opposite the point of the hook, substantially as described.

4. The combination of the box F, formed with the openings *f*, having their edges on their sides toward the hame beveled outwardly away from said hame, the tug G, the hook H, fastened to the tug and having the point *h*, formed substantially as described, and a spring applied to said hook and adapted to press its point into the openings *f*, substantially as described.

In witness whereof I have signed this specification in the presence of two subscribing witnesses.

SAMUEL E. BRICKNELL.

Witnesses:

ADAM KNORNSCHILD,
FRANC BACON.