

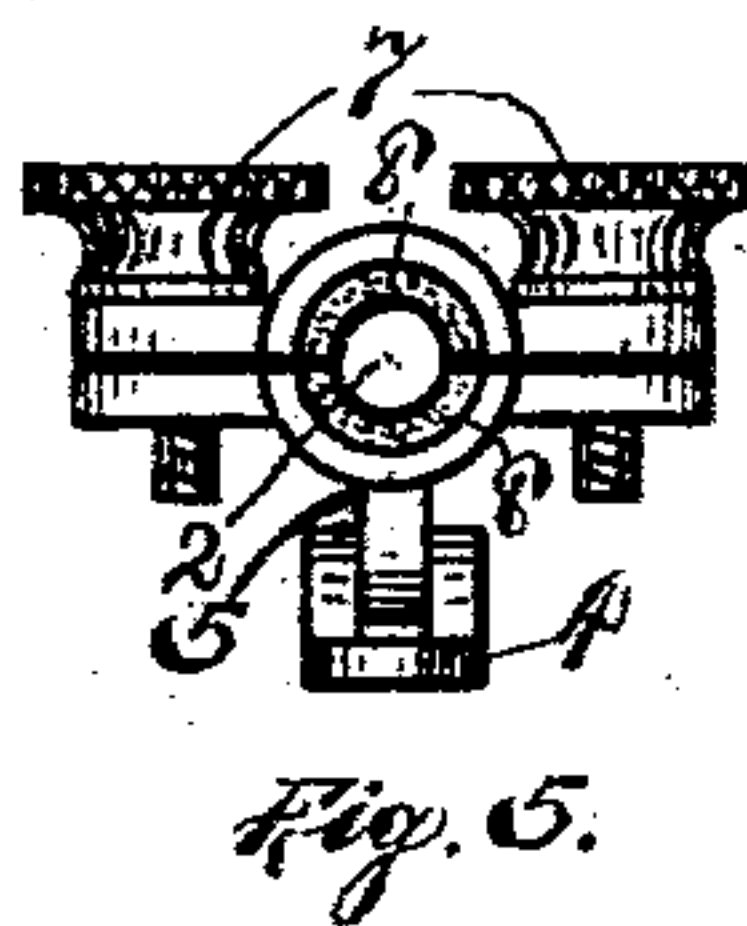
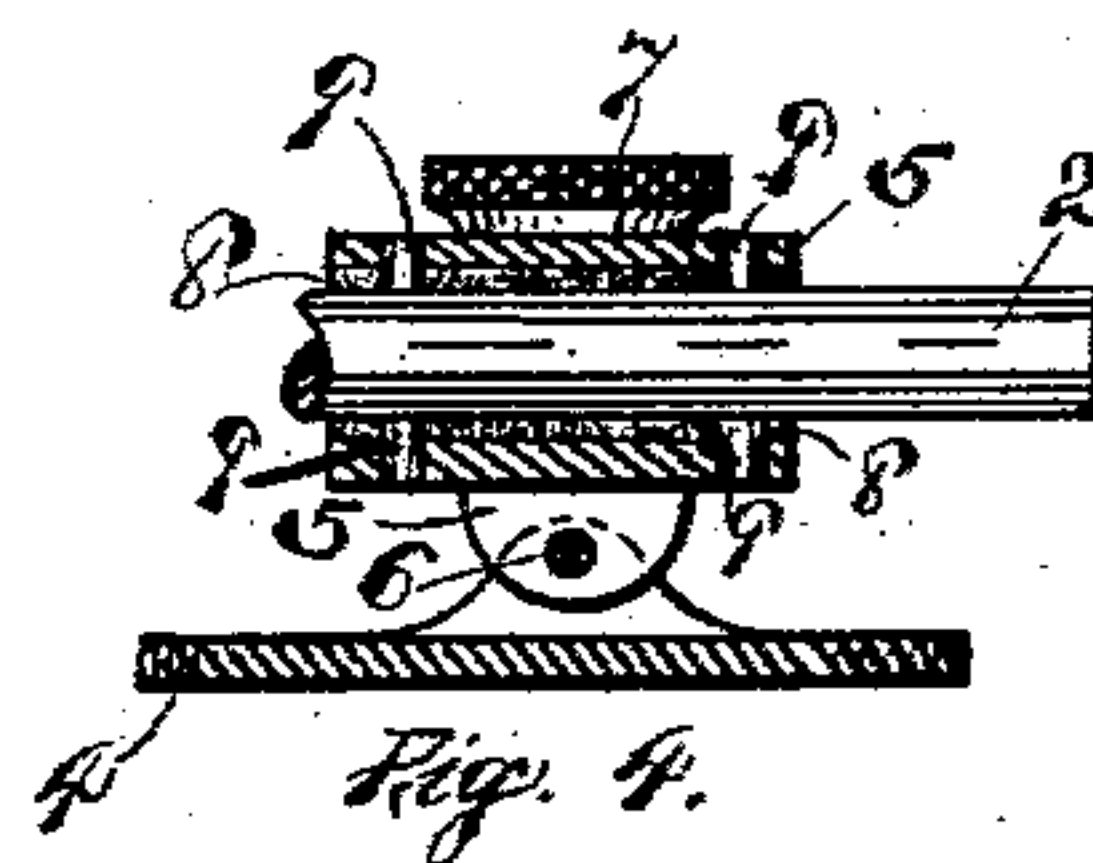
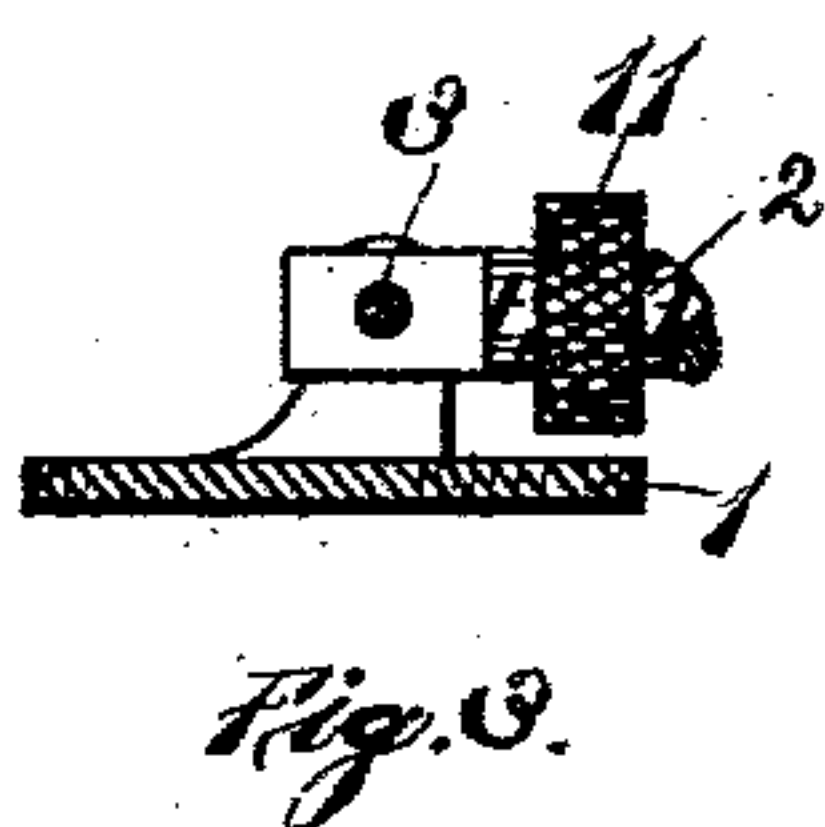
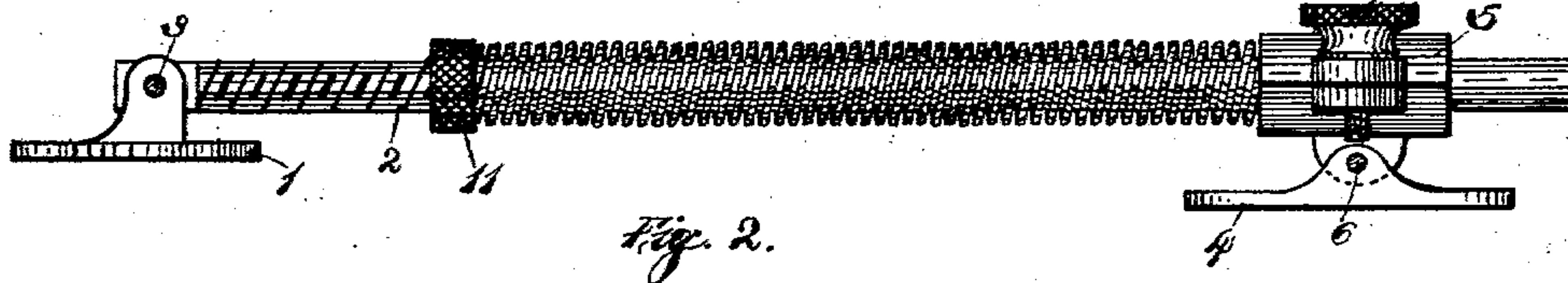
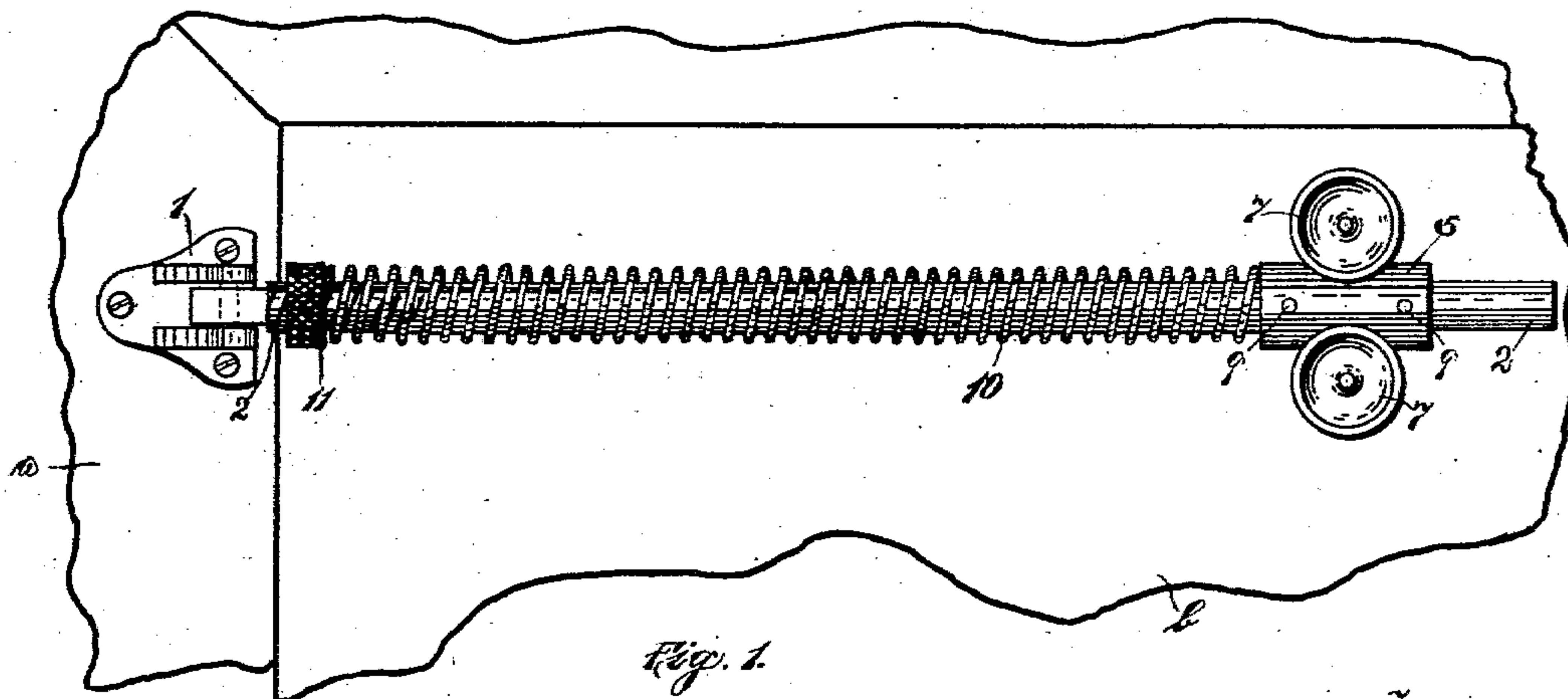
No. 715,175.

Patented Dec. 2, 1902.

C. F. SULLIVAN.
DOOR CLOSER, CHECK, AND HOLDER.

(Application filed Feb. 8, 1902.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

CORNELIUS F. SULLIVAN, OF BOSTON, MASSACHUSETTS, ASSIGNOR, BY
MESNE ASSIGNMENTS, TO THAYER DOOR CHECK AND SPRING CO., A
CORPORATION OF MAINE.

DOOR CLOSER, CHECK, AND HOLDER.

SPECIFICATION forming part of Letters Patent No. 715,175, dated December 2, 1902.

Application filed February 8, 1902. Serial No. 93,172. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS F. SULLIVAN, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Door Closers, Checks, and Holders, of which the following is a specification.

This invention relates to a device which is adapted to close a door and check the same during the latter part of its closing movement and which is also adapted to hold the door open to any extent desired.

The object of my invention is to provide a device of the above character which is simple and effective and which may be made at a low cost.

In the drawings, Figure 1 is a plan view of my device. Fig. 2 is a side elevation thereof. Figs. 3 and 4 are central longitudinal sections of the brackets and connected parts. Fig. 5 is an end view of the door-fixture.

A bracket 1 is secured to the door-casing *a* and has a rod 2 pivoted thereto by pin 3, so that said rod may swing with the door *b*. A second bracket 4 is secured to the door, and a friction-clamp 5 is pivoted to the top thereof by pin 6. This clamp is formed in two parts, the outer part being clamped to the inner by clamping-screws 7. The adjacent sides of said clamps are provided with semicylindrical recesses, in which correspondingly-shaped packings 8 are held against longitudinal movement by pins 9. The end of rod 2 opposite its pivoted end is of somewhat greater diameter than the internal diameter of these packings when placed in the recesses of the clamp, so that when the end of said rod is passed through the aperture between the two parts of the clamp and the screws 7 are then tightened the rod may be held with a strong frictional engagement, which may be varied at will by tightening or loosening the screws 7. A spring 10 is arranged on said rod 2 and interposed between said clamp and a thumb-nut 11, which is threaded on rod 2 and may be tightened to adjust the tension of the spring.

The screws 7 being properly adjusted, the

operation is as follows: As the door is opened the spring 10 is compressed between the clamp 5 and nut 11, and the rod 2 slides in the clamp. The amount of friction on rod 2 is comparatively slight, so that the added resistance of the opening of the door is correspondingly slight. The tension of the spring is such that while it readily moves the door to a closed position during the first part of the closing movement this movement will be gradually retarded as the spring loses its tension, so that the latter part of this movement will be very gradual and prevent all slamming of the door. The friction on the rod and the tension of the spring may be adjusted so that the door may be closed with scarcely any noise, and these adjustments may be readily varied.

In summer-time it is often desirable to have a door held open in a fixed position. When the door is provided with my device, this may be accomplished by loosening the nut 11, so as to remove the tension on the spring, (see Fig. 1,) opening the door to the desired position, and then tightening the screws 7, clamping the rod 2. Ordinarily, however, it is only necessary to loosen nut 11, as the normal friction on the rod is sufficient to hold the door in an open position when the spring is made inoperative.

From the foregoing description it will be apparent that I have produced a simple device in which is accomplished the threefold function of a door spring, check, and holder.

Having described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is as follows:

A door-closer comprising two brackets one of which is secured to the door-casing and the other to the door, a rod which is pivoted to one of said brackets, a clamp comprising two clamping members, one of which is provided with a lug, said lug being pivoted to the other bracket, said members having semicylindrical recesses in their adjacent sides, a segmental-shaped packing in each recess, the end of said rod opposite its pivoted end being arranged between said packings, projections carried by each member which engage said

packings and hold the same from movement
with respect to said members, a pair of clamp-
ing - screws for pressing said members to-
gether, a nut which is threaded on said rod,
5 and a spring on said rod which is interposed
between said clamp and nut, substantially as
described.

In testimony whereof I have affixed my sig-
nature in presence of two witnesses.

CORNELIUS F. SULLIVAN.

Witnesses:

LOUIS H. HARRIMAN,
GEORGE E. UCKER.