

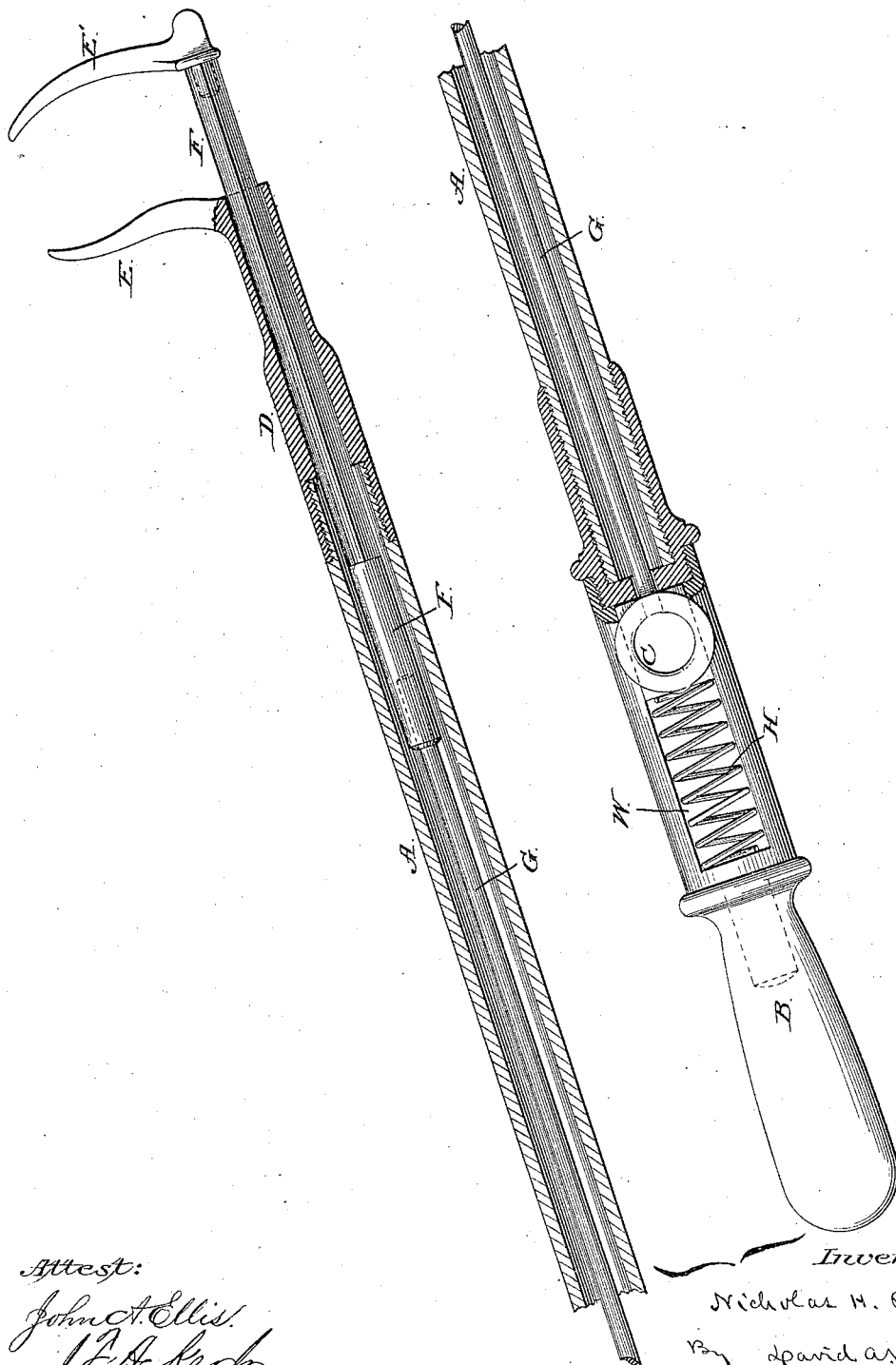
(No Model.)

N. H. POWER.

GRIPPER.

No. 307,410.

Patented Oct. 28, 1884.



Attest:

John A. Ellis.
J. E. Akerly

Inventor:

Nicholas H. Power

By David A. Burr

Atty.

UNITED STATES PATENT OFFICE.

NICHOLAS H. POWER, OF NEW YORK, N. Y., ASSIGNOR TO SAMUEL COHN,
OF SAME PLACE.

GRIPPER.

SPECIFICATION forming part of Letters Patent No. 307,410, dated October 28, 1884.

Application filed September 24, 1884. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS H. POWER, of the city, county, and State of New York, have invented a new and useful Improvement in Grippers or Gripper-Staffs; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to that class of devices variously designated as "grippers," "grip-staffs," "window-tongs," &c., and which are adapted for seizing and lifting or removing objects from high shelves, deep shop-windows, and other places or points not easily accessible, and in like manner placing them at such points. It has for its object a more efficient, simple, and cheaply-constructed appliance for the purpose than those heretofore in use; and it consists in the combination, with the outer end of a rod led longitudinally through a tubular staff, of a movable jaw or finger actuated by the rod to slide to and from a stationary jaw or finger secured to the staff, so that the two may be thereby closed together to grasp between them any interposed object.

The figure in the accompanying drawing consists of an elevation, partly in section, of the two ends of my improved gripper.

A represents a long, slender, tubular staff, which may consist, for example, of a bamboo rod. This staff may be in one piece from end to end, or may consist of two or more joints screwed together or otherwise united end to end. The inner end of the staff is provided with a suitable handle, B, and a slide, C, is fitted within a longitudinal slot, W, in said handle, to move back and forth therein. This slide may be in the shape of a ring, as illustrated, or of any other convenient form. A head or ferrule, D, is secured upon the outer end of the staff, and from the outer end of this head an arm or finger, E, is made to project at about a right angle with the length of the staff, as illustrated in the drawing. An aperture, which is preferably made hexagonal or otherwise angular in section, is pierced longitudinally through the head D, and a mov-

able bar, F, carrying upon its outer end an arm or finger, E', corresponding to the stationary finger E and projecting from the arm at about a right angle to its length, is fitted to play in said aperture. The finger E' may be constructed integrally with the bar F or separately therefrom, to be attached thereto by a pin or screw, as illustrated in the drawing. The angular section of the bar F serves to prevent it from turning in the aperture through which it plays, and the movable finger E' is thereby kept in line parallel with the stationary finger E, so as to close against the same when the two are brought together, the ends of the fingers being made to strike each other so as to firmly bite and clamp between them any intervening object. A rod, G, is led through the hollow staff A and screwed into a socket in the inner end of the finger-bar F, and the outer end of this rod is made fast to the slide C in the handle B. The rod is so proportioned in length as that when the slide C is drawn nearly to the outer end of the slot in the handle the bar F will be drawn inward far enough to bring its finger E' into contact with the stationary finger E, and by pushing the slide C outward the finger E' will be thereby carried out away from the finger E to a corresponding extent. This opening and closing of the finger E' may thus be produced positively in either direction by a simple movement of the slide C independently of any spring; but I contemplate causing the finger to open automatically by inserting a spring, H, between the slide C and the outer end of the slot W, to be compressed by the movement of the slide in that direction. Where it is preferred that the finger shall close instead of opening automatically, the spring may be inserted between the slide and the inner end of the handle.

It is obvious that, as an equivalent device, the rod G may be made to work in a longitudinal groove cut in a solid staff, instead of in a perforation through the length of the staff, and that the slide C may be made to work in ways upon the outside of the handle, instead of in a slot cut therein, and I contemplate such modifications as a part of my invention.

My improved gripper-rod is adapted not only

for placing or removing objects in show-windows, on shelves, &c., but also for catching crabs and certain fishes, picking up objects in deep water, and other similar purposes.

5 I claim as my invention—

1. A gripper constructed of a fixed jaw or finger secured rigidly to the outer end of a long staff, in combination with a movable jaw or finger adapted to close against the station-
10 ary finger, and which is secured to the end of a rod reciprocating longitudinally in or upon the staff, substantially in the manner and for the purpose herein set forth.

2. The combination, with a long staff and
15 with a transverse offset or finger projecting from its outer end, of a rod adapted to slide longitudinally in or upon the staff, an offset or finger projecting from the outer end of the reciprocating rod parallel with the offset or
20 finger on the staff, and a ring or finger-piece

at the inner end of the rod, playing within or along the inner end or handle of the staff, substantially in the manner and for the purpose herein set forth.

3. The combination, in a gripper, of a rod 25 reciprocating longitudinally through or upon a long staff, a finger upon the outer end of the staff, a counterpart parallel finger upon the end of the rod adapted to close against the first, and a spring interposed between the rod 30 and staff, substantially in the manner and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

NICHOLAS H. POWER.

Witnesses:

P. ELBERT NOSTRAND,
SAMUEL COHN.