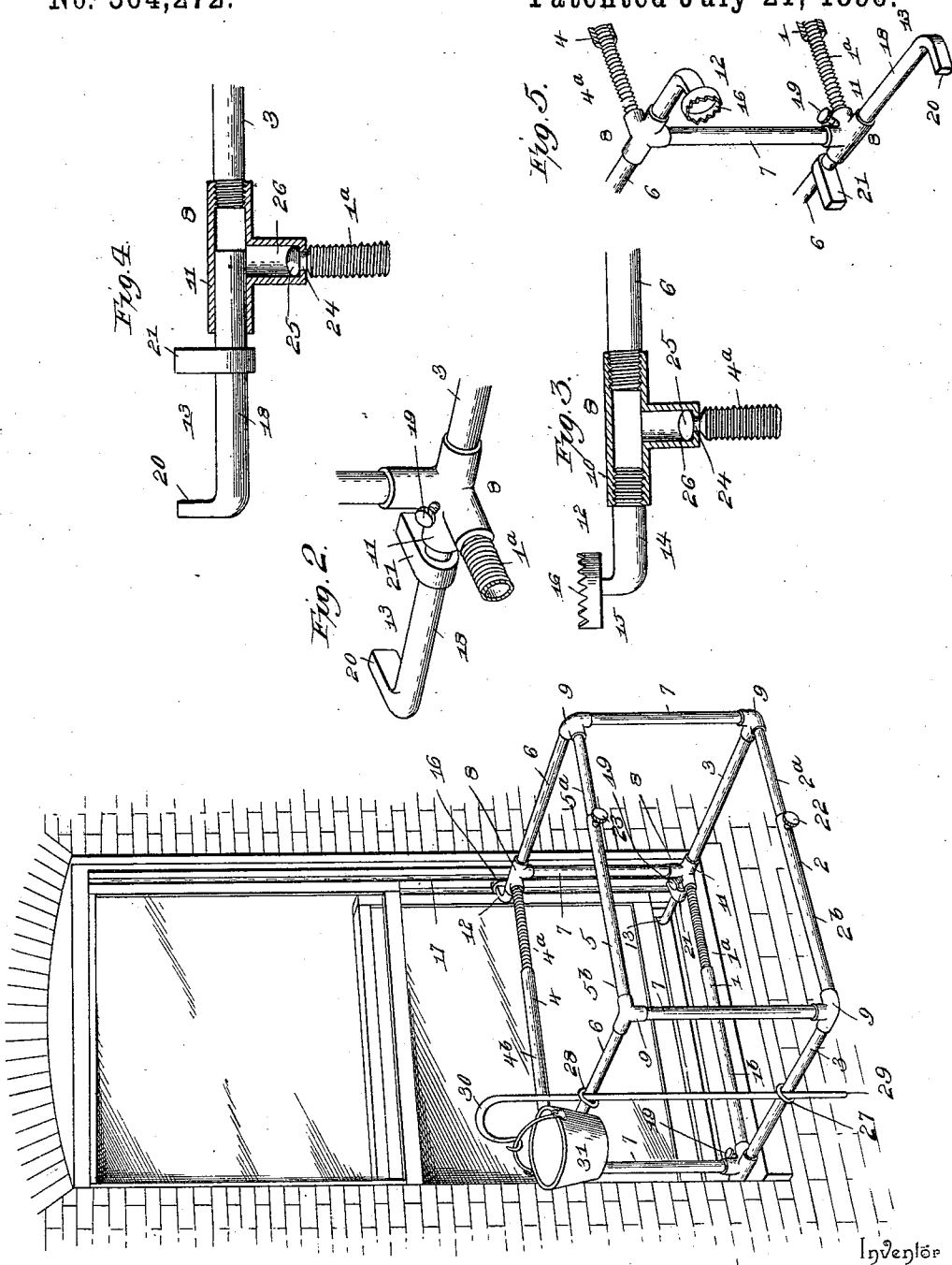


(No Model.)

S. M. COOPER.
WINDOW CLEANING BRACKET.

No. 564,272.

Patented July 21, 1896.



Witnesses

John C. Shaw
[Signature]

Samuel M. Cooper,
By *his* Attorneys.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

SAMUEL M. COOPER, OF CHANUTE, KANSAS.

WINDOW-CLEANING BRACKET.

SPECIFICATION forming part of Letters Patent No. 564,272, dated July 21, 1896.

Application filed April 6, 1895. Serial No. 544,774. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL M. COOPER, a citizen of the United States, residing at Chanute, in the county of Neosho and State of Kansas, have invented a new and useful Window-Cleaning Bracket, of which the following is a specification.

My invention relates to window-cleaning brackets, and has for its object to provide a simple and efficient device for attachment to a window-frame to form a support while cleaning the exterior of a window, the device being provided with suitable means for securing the same in place without interfering with the vertical movement of the lower sash.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a window-bracket constructed in accordance with my invention applied in the operative position to a window-frame. Fig. 2 is a detail view in perspective of one of the lower clamps. Fig. 3 is a detail section to show one of the upper fastening devices and the means for adjusting the same. Fig. 4 is a similar view of one of the lower fastening devices. Fig. 5 is a detail perspective of a portion of the inner end of the bracket.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The essential parts of the bracket are formed of tubular bars, the base thereof having the inner and outer horizontal bars 1 and 2 and the side bars 3, the horizontal top having inner and outer bars 4 and 5 and the side bars 6, and the angles of the top and base being connected by means of uprights 7. The points of connection of the several tubular bars comprising the bracket are united by means of couplings 8 and 9, the latter being arranged at the outer end of the bracket and being three-arm couplings, and the former being arranged at the inner end of the bracket and being four-arm couplings. The inwardly-extending arms of these four-arm couplings form sockets 10 and 11, the former being arranged at the extremities of the inner top bar and the latter at the ends of the inner base-

bar and being adapted, respectively, for the clamps 12 and 13. The clamps 12 consist of shanks 14, which are threaded in the threaded bores of the sockets 10, lateral stems 15, integral with said shanks, and terminal serrated or spurred heads 16 of disk shape, which are adapted to be arranged in contact with the sides of the window-frame outside of the plane of the lower sash and preferably inside of a guide-strip 17, which forms a member of an ordinary window-frame. The lower clamps 13 comprise shanks 18, which fit in the sockets 11 and are secured at the desired adjustment by means of set-screws 19, said shanks terminating in lateral lugs or ears 20, which are adapted to engage or bear against the inner surface of the window-frame below the bottom of the lower sash and contiguous to the sill. In addition to this the clamps 13 are provided upon their shanks with outer ears 21 to engage the depression between two contiguous guide-strips of the window-frame, and as the lugs or ears 20 and 21 are fixed in position upon the shanks 18 both inward and outward movement of the lower clamps is prevented.

The upper and lower bars 2 and 5 at the outer end of the bracket are constructed of telescoping members 2^a 2^b and 5^a 5^b , the members 2^a and 5^a being of smaller diameter than the other members 2^b and 5^b and being inserted to slide in the bores thereof, and set-screws 22 and 23 are employed to lock these sliding members at the desired adjustment. The inner upper and lower bars of the bracket are also constructed of telescoping members 1^a 1^b and 4^a 4^b , the contiguous ends of the members being connected by threading members 1^a and 4^a into the bores of the members 1^b and 4^b , while the other ends of said members 1^a and 4^a are provided with spindles 24 and terminal heads 25, mounted in sockets 26 in the contiguous arms of the couplings 8, whereby said members 1^a and 4^a are swiveled in the angle-couplings 8 to allow rotation thereof to adjust the length of the bars 1 and 4.

By means of the above-described adjustment of the inner and outer upper and lower members of the bracket the device may be collapsed sufficiently to pass through a window-frame and subsequently adjusted at its inner end to cause the proper engagement of

the clamps 12 and 13 with the window-frame, the adjustment of the outer end of the bracket being regulated by that of the inner end to insure the rigidity of the structure.

5 Secured by clips 27 and 28 to the upper and lower side bars at one side of the bracket is a vertical staff 29, provided at its upper end with a hook 30 for supporting a pail 31 within reach of an operator in the bracket.

10 From the above description it will be seen that the engagement of the upper clamps with the window-frame is outside of the plane of the lower sash, and hence the lower sash may be lowered to expose its exterior surface, and at the same time by reason of the threaded connection of the members of the upper and lower inner bars of the bracket the engagement of the clamps with the frame is such as to prevent detachment or dis-
15 placement of the apparatus.

The serrated or toothed clamps, which are preferably located in the plane of the upper bars of the bracket and are designed to en-
25 gage the sides of the window-frame outside of the plane of the sash, are of special advantage by reason of their use in connection with the telescoping members of the inner bars, inasmuch as the extension of said inner bars by turning the rotary members 4^a and 1^a forces the teeth of said clamps into the ma-
30 terial of the window-frame. Furthermore, when said bars 4 and 1 have been extended to cause the desired adjustment of the clamps 12 in the window-frame they are held at said
35 adjustment without the use of locking or clamping devices.

A further feature of advantage in my construction is due to the specific arrangement of the parts whereby a T-coupling 8 forms
40 the means of connection of the standards and side bars, a socket for the shank or stem of the clamp, and a socket for the head of the swiveled or rotary member of the contiguous inner bar.

45 Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

50 Having described my invention, what I claim is—

1. A window-bracket having extensible

transverse bars consisting of telescoping members, and serrated or toothed clamps ar-
ranged at opposite sides of the bracket to
55 engage the sides of a window-frame, the inner transverse bars having their members threaded upon each other and one of the members mounted for rotary movement, whereby the bars may be forcibly extended
60 to press the serrations or teeth of the clamps into the window-frame, said members being held at the desired adjustment without auxiliary locking devices, substantially as speci-
65 fied.

2. A window-bracket having inner and outer upper and lower transverse extensible bars connected at their extremities by side bars and standards, four-armed couplings ar-
ranged at the extremities of the inner, upper
70 and lower transverse bars, clamps for engaging the sides of a window-frame having their stems fitted in the inwardly-extending arms of said couplings, the inner transverse bars comprising telescoping threaded members
75 and one of the members of each bar being swiveled in another arm of each of the contiguous four-armed couplings, and the outer transverse bars having telescoping members adapted to slide freely one within the other,
80 and locking devices for securing the members of said outer transverse bars at the desired adjustment, substantially as specified.

3. A window-bracket having upper and lower side bars, uprights at the extremities
85 of the side bars, couplings connecting the extremities of said side bars and uprights, inner and outer transverse bars connecting the extremities of the side bars, the inner transverse bars comprising telescoping mem-
90 bers of which one member is swiveled in a socket in a contiguous coupling and is threaded in the bore of the other member, and clamps carried by the bracket at its inner
95 end to engage the window-frame when the bracket is expanded laterally, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

SAMUEL M. COOPER.

Witnesses:

S. P. DEER,

W. O. GRAY.