

*H. M. Wilson,
Shutter Worker.*

N^o 33,553.

Patented Oct. 22, 1861.

Fig: 1.

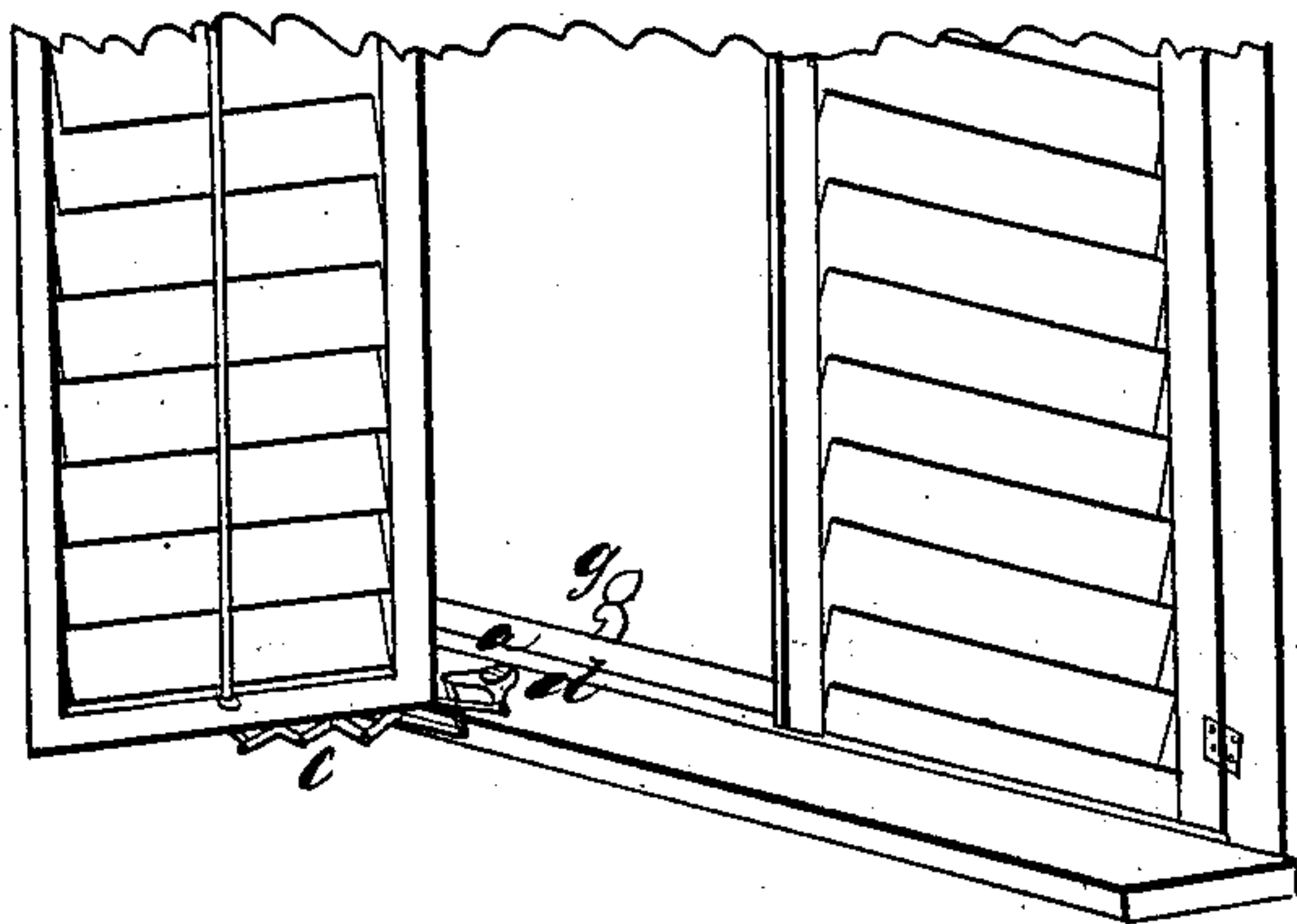


Fig: 2.

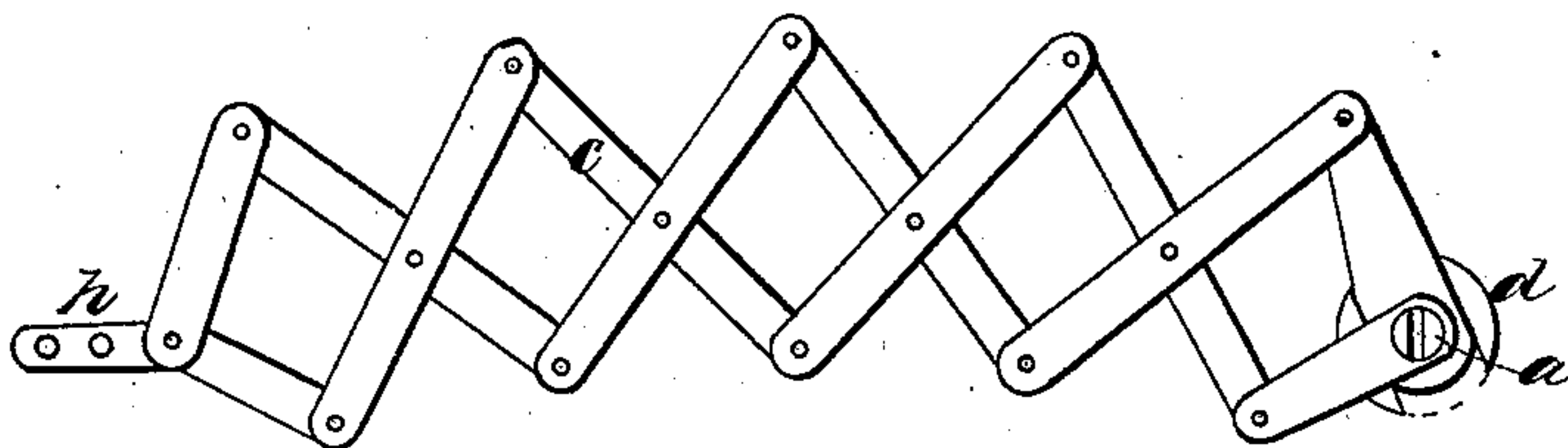


Fig. 3.

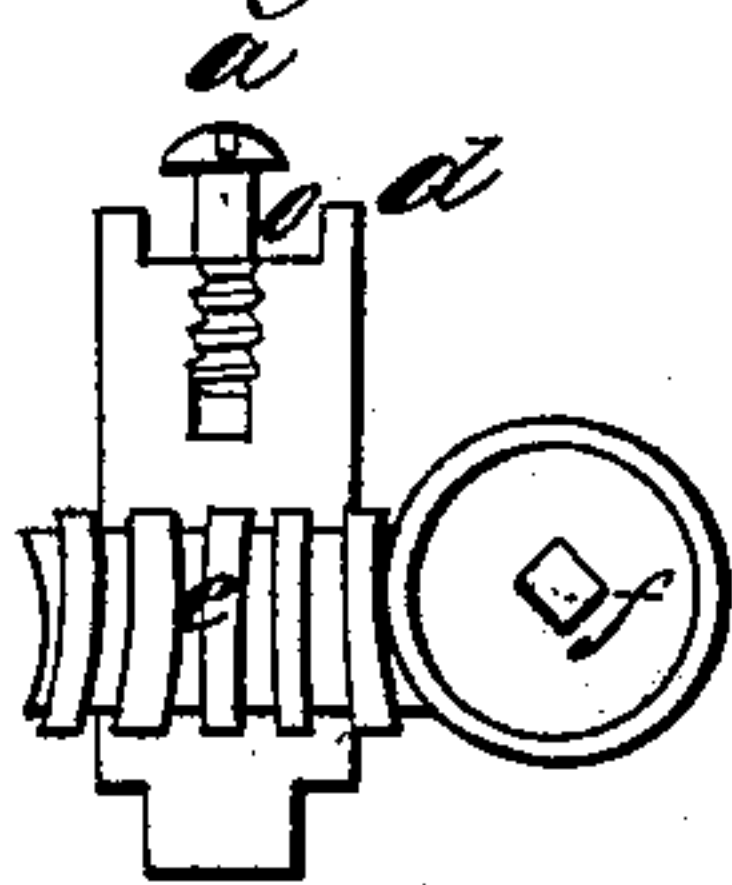
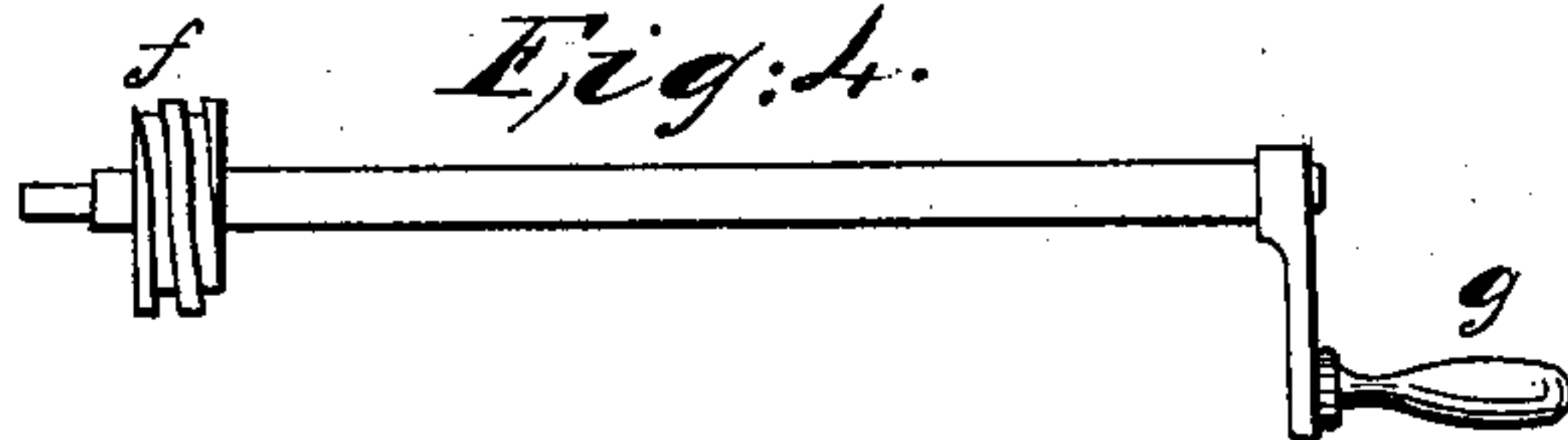


Fig: 4.



*Witnesses:
Wm M Gooding
Cyrus Carrier*

*Inventor:
Hercules M Wilson*

UNITED STATES PATENT OFFICE.

HERCULES M. WILSON, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN OPERATING WINDOW-SHUTTERS.

Specification forming part of Letters Patent No. 33,553, dated October 22, 1861.

To all whom it may concern:

Be it known that I, HERCULES M. WILSON, of the city of Newark, in the county of Essex and State of New Jersey, have invented certain Improvements in the Manner of Operating Shutters and Blinds; and I do hereby declare the following to be a full and exact description of the same, reference being herein had to the drawings which accompany this specification and make part of the same.

The nature of my invention consists in the construction and adaptation of levers, wheel, and screw to the opening and closing as well as to the fastening or holding the blind in a given position.

In the drawings, Figure 1 shows the leverage as attached to the shutter or blind. Fig. 2 shows the jointed lever; Fig. 3, the screw and the worm or screw wheel; Fig. 4, the worm-wheel shaft and crank.

The same letters refer to the same parts in each figure.

One end of the jointed lever, Fig. 2, is attached to the under edge of the shutter or blind at *h*, and the other end is held in the slot *o* on the top of the revolving shaft *d* by the screw *a*, which passes through (leaving it at liberty to move) the joint *i*, which allows of the expansion and contraction of the jointed lever *c*. The lever *c* is constructed with the middle rivets or pins nearer one end than to

the other, which makes the lever expand and contract on a curve as the motion of the shutter or blind requires. Upon the revolving shaft *d* a worm *e* is put to be operated by the worm-wheel *f* on the shaft, Fig. 4, and the crank *g*. The revolving shaft *d* and the wheel *f* are so inserted into the window-sill as not to be seen, with the exception of the slotted top *o*, which rises above sufficiently to operate the lever *c*, the shaft, Fig. 4, passes through the sill, and the crank *g* is thus inside the window and can operate the blind or shutter without the sash being raised. The form of the leverage makes it a secure fastening to hold the blind open or shut without any other attachments. It also with the greatest ease cracks the ice which may form upon it.

I do not claim jointed levers nor worm-wheels; but

What I claim and desire to secure is—

The levers, worm, and screw or worm wheel and the shaft with the slotted top, when constructed and combined substantially in the manner and for the purpose hereinabove specified.

HERCULES M. WILSON.

Witnesses:

W. M. GOODING,
CYRUS CURRIER.