

No. 850,421.

PATENTED APR. 16, 1907.

O. M. DE WITT.  
SPIKE.

APPLICATION FILED SEPT. 24, 1906.

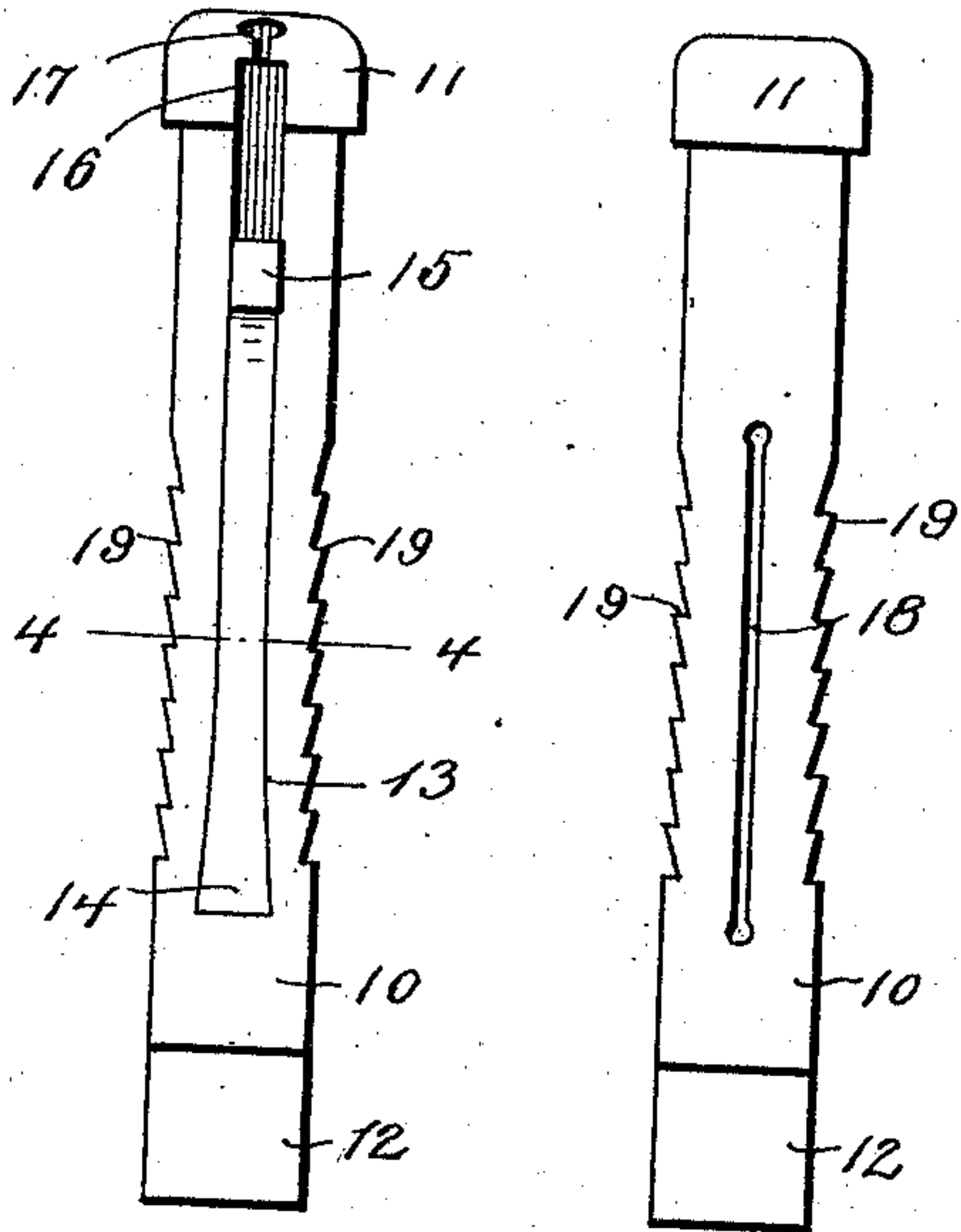


Fig. 1. Fig. 2.

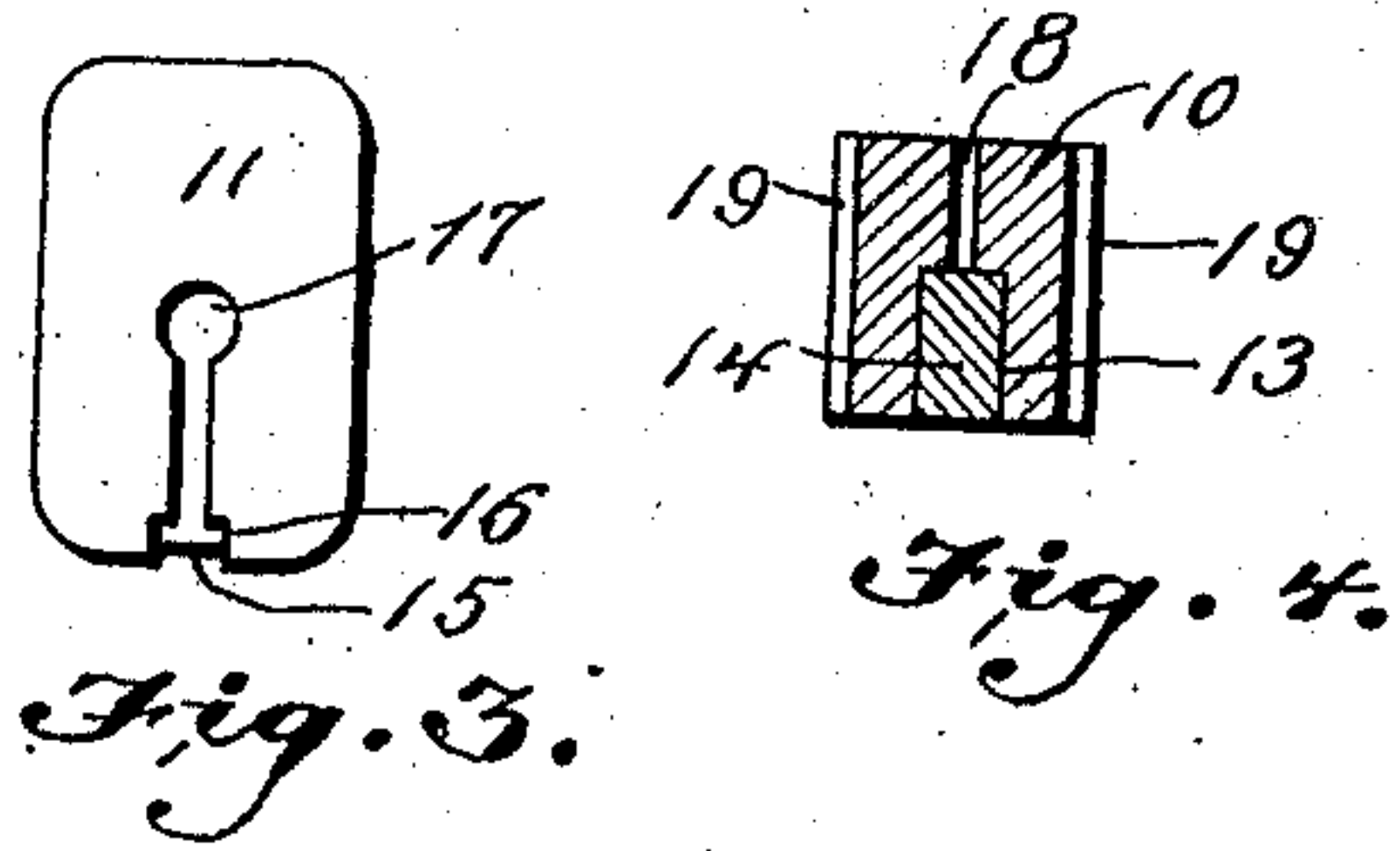


Fig. 3.

Fig. 4.

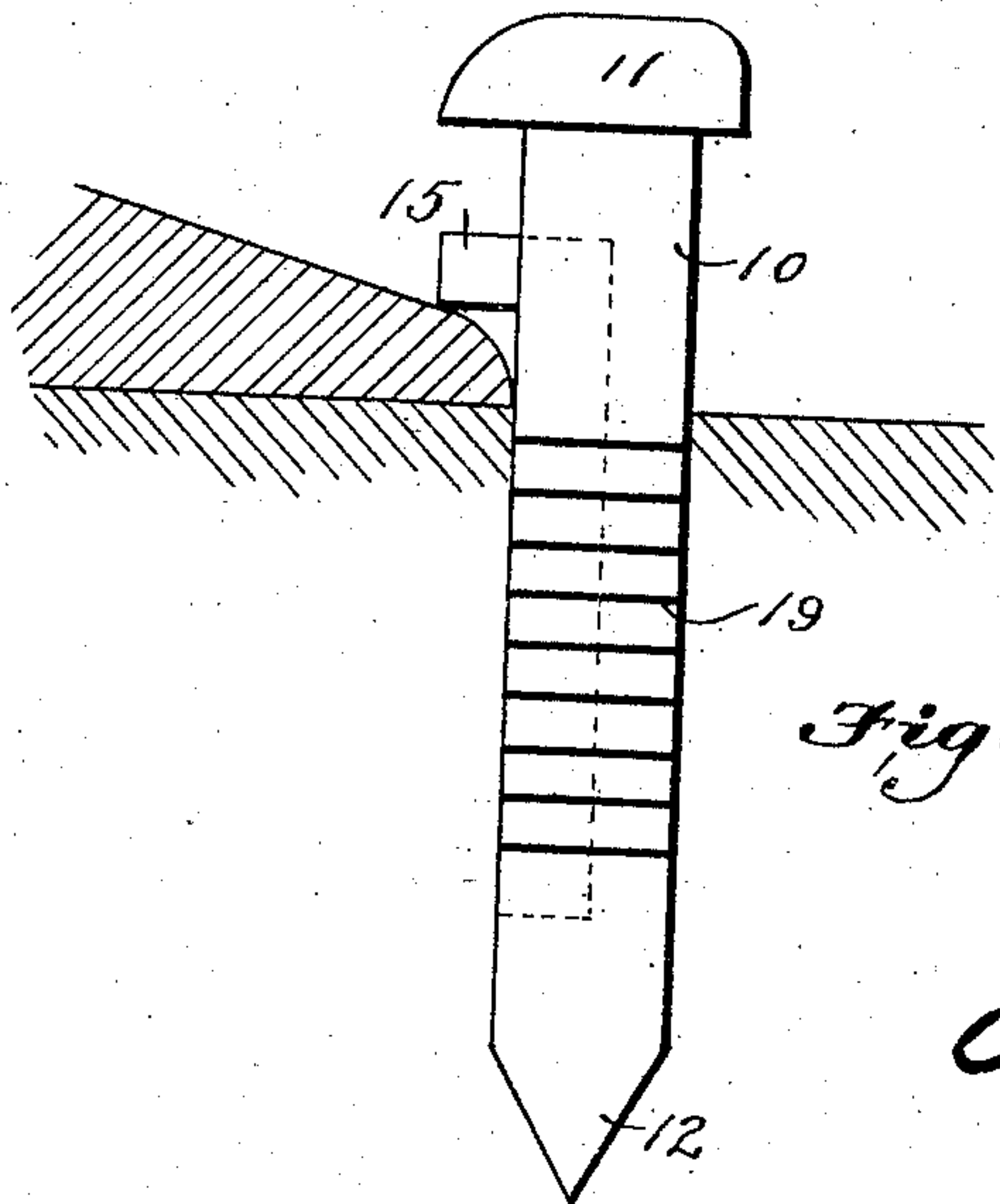


Fig. 5.

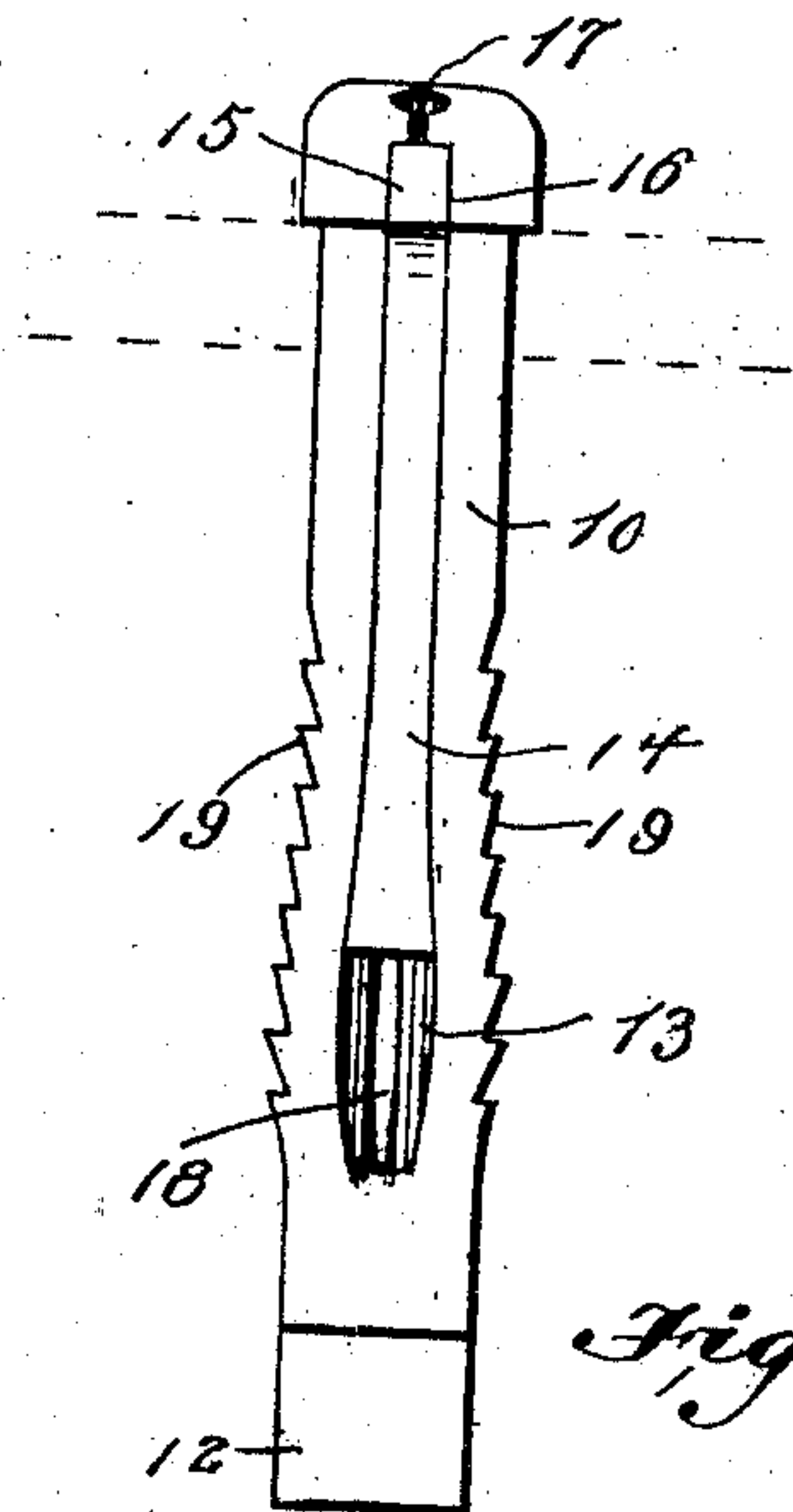


Fig. 6.

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# UNITED STATES PATENT OFFICE.

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## SPIKE.

No. 850,421.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed September 24, 1906. Serial No. 335,898.

*To all whom it may concern:*

Be it known that I, OMAR M. DE WITT, a citizen of the United States, residing at Hood River, in the county of Wasco and State of Oregon, have invented new and useful Improvements in Spikes, of which the following is a specification.

This invention is a spike, and more particularly that kind which is used for fastening railway-rails.

The object of the invention is to provide means for preventing or rendering difficult the accidental withdrawal of the spike after it has been driven into the tie; and to this end it consists in certain novel features of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a front elevation, and Fig. 2 a rear elevation, of the spike. Fig. 3 is a top plan view. Fig. 4 is a cross-section on the line 4 4 of Fig. 1. Fig. 5 is a side elevation showing the spike partly driven home. Fig. 6 is a front elevation showing the final position of the spike.

Referring specifically to the drawings, 10 denotes the shank of the spike, having at its upper end the usual overhanging head 11 and at its lower end the point 12. In the inner face of the shank, below the head, is a longitudinally-extending groove 13, which receives a wedge-shaped key 14, having at its upper end a laterally-projecting head 15. The spike-head 11 has a recess 16, which is in alinement and communicates with the groove 13, and extending from the top of the spike-head and communicating with said recess is a hole 17, which is for a purpose to be hereinafter described. The head 15 of the key projects outwardly from the shank of the spike in the same direction and for substantially the same distance as the head 11. The groove 13 is shaped to receive the key 14 at a snug fit, and the face of the latter is flush with the outer surface of the spike-shank. The groove is longer than the key, and the latter is placed in the groove with the head 15 at some distance below the spike-head 11. In the rear side of the shank is a slit 18, which communicates with the groove 13, and for a length substantially the same as the slit the sides of the shank are barbed or serrated, as at 19.

In use before the spike is driven the key occupies the position shown in Fig. 1, the head 15 being below the spike-head 11. Upon driving the spike when the head 15 comes in contact with the rail or other object

to be fastened, as shown in Fig. 5, the key 14 will be drawn upwardly in the groove 13, whereby by reason of its wedge shape the spike-shank will be spread laterally, thus crowding its barbed sides into the tie, as shown in Fig. 6. This securely holds the spike in place and effectively prevents or renders difficult its withdrawal. When the spike is in its final position, the head 15 extends into the recess 16, so that the spike-head can engage the foot of the rail in the usual manner. To withdraw the spike, the key 14 will be driven downwardly in the groove to its first position. This can be readily done by inserting a suitable tool through the hole 17. When the key is driven down, the expanded sides of the spike will be retracted, after which it can be readily withdrawn in the usual manner.

I claim—

1. A spike having an expanding portion and a longitudinal groove below the head thereof, a wedge in the groove arranged to expand the spike when drawn upwardly in the groove, and a laterally-projecting head on the wedge engageable with the parts to be held by the spike, for operating the wedge.

2. A spike having an expanding portion and a longitudinal groove below the head thereof, and said spike-head having a recess in alinement and communicating with the groove, a wedge in the groove arranged to expand the spike when drawn upwardly in the groove, and a laterally-projecting head on the wedge engageable with the parts to be held by the spike, for operating the wedge, and extensible into the recess in the spike-head.

3. A spike having an expanding portion and a longitudinal groove below the head thereof, and said spike-head having a recess in alinement and communicating with the groove and the outside of the head, a wedge in the groove arranged to expand the spike when drawn upwardly in the groove, and a laterally-projecting head on the wedge engageable with the parts to be held by the spike, for operating the wedge, and extensible into the recess in the spike-head.

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

OMAR M. DE WITT.

Witnesses:

MABEL E. PAULSEN,  
SENECA F. FOUTS.