

(No Model.)

F. LEWIS.
NOZZLE FOR GARDEN HOSE.

No. 545,656.

Patented Sept. 3, 1895.

Fig. 1.

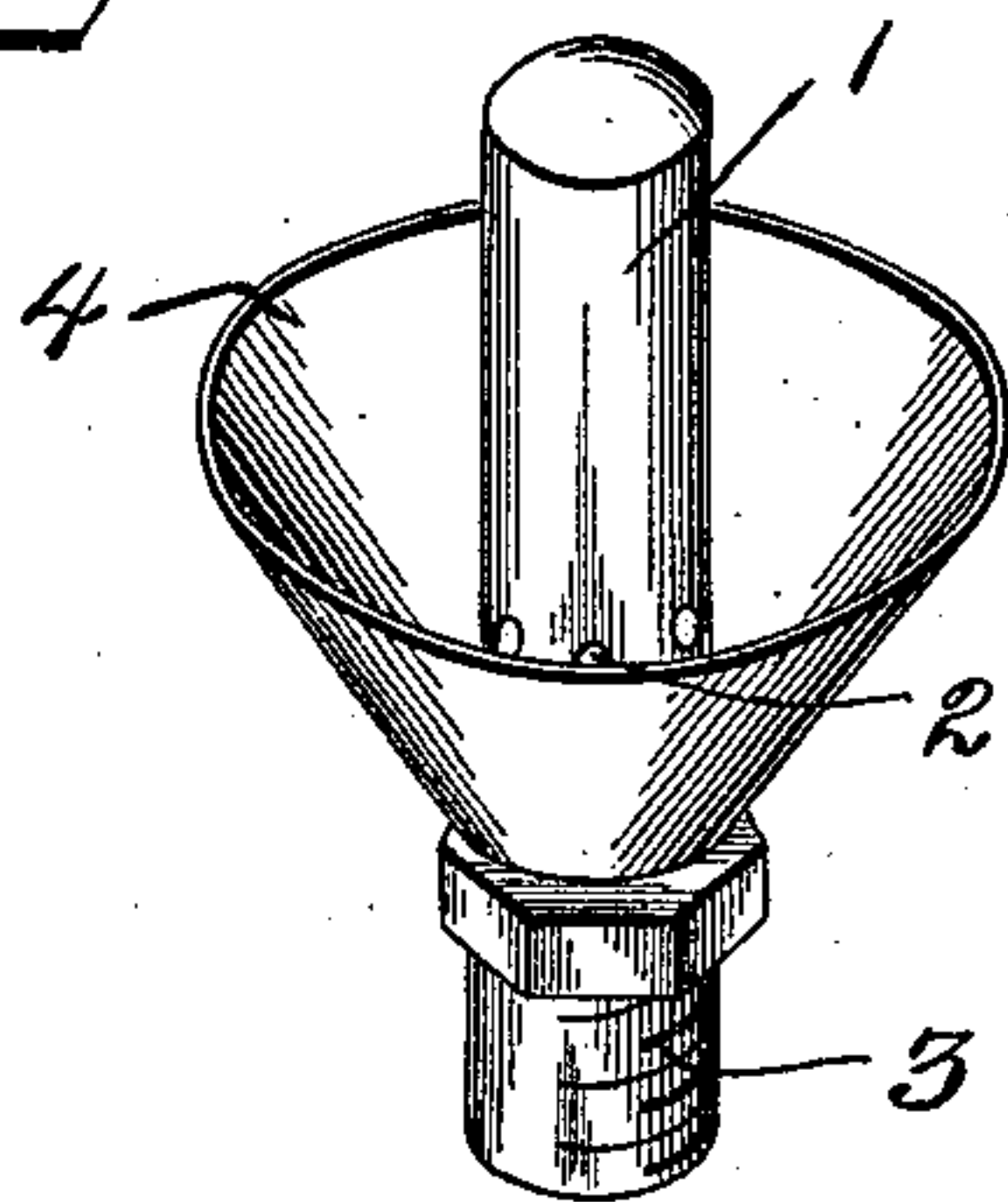


Fig. 2.

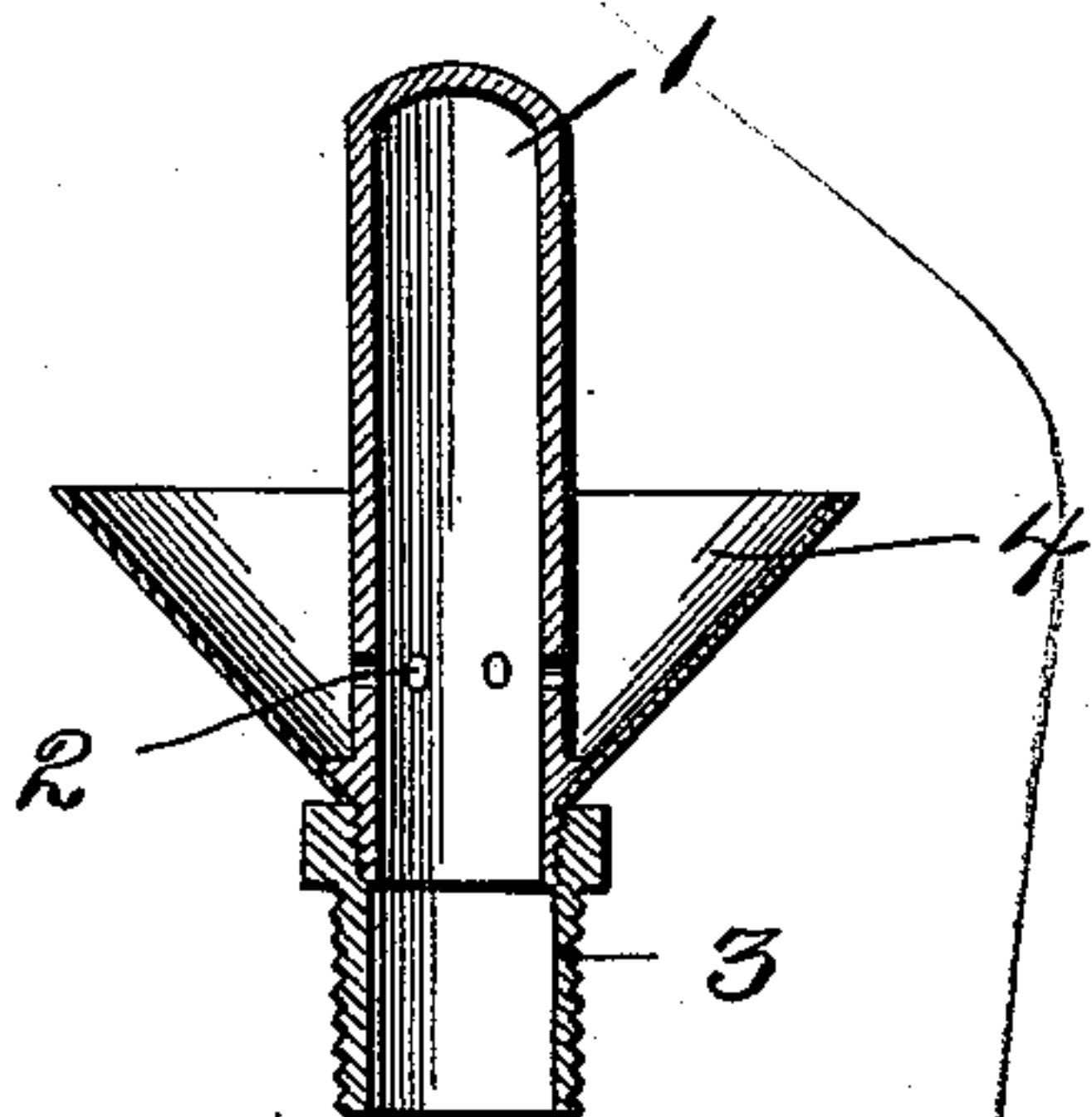


Fig. 3.

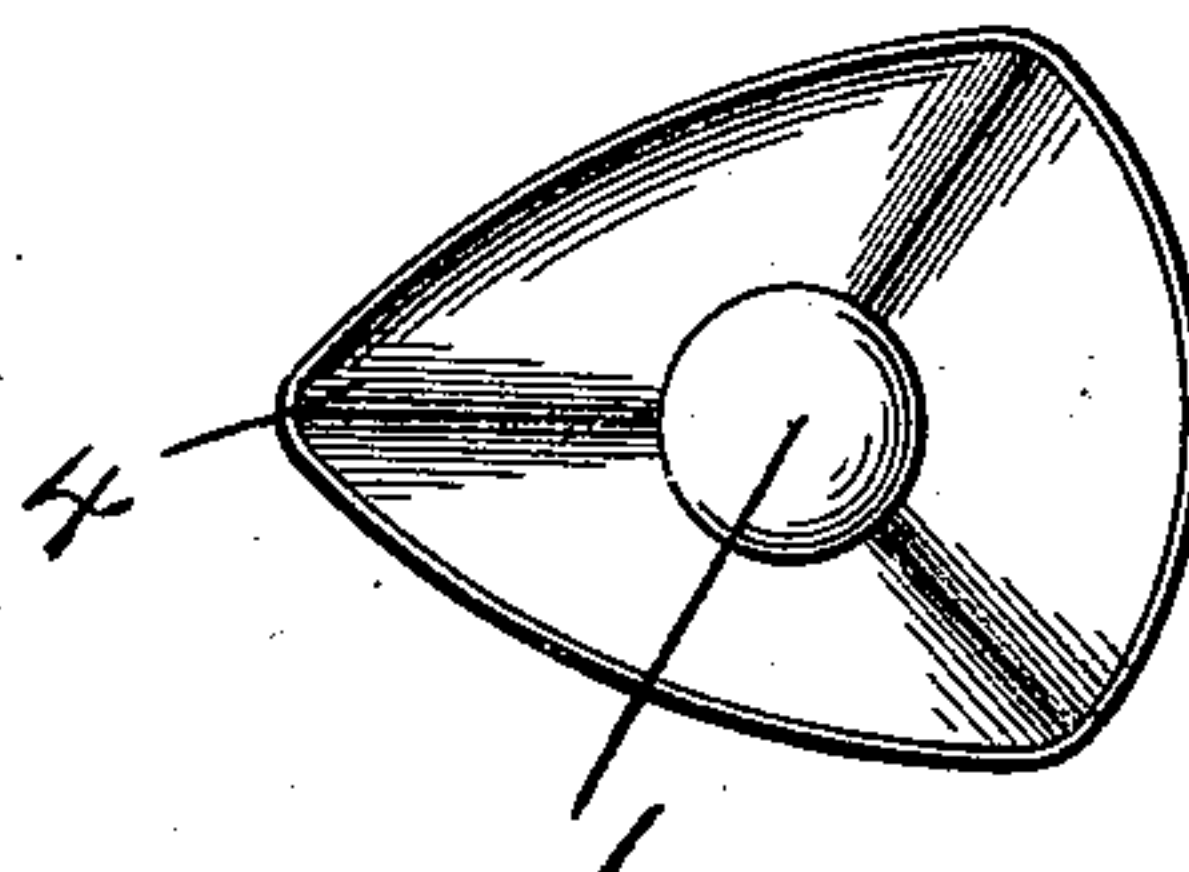


Fig. 4.

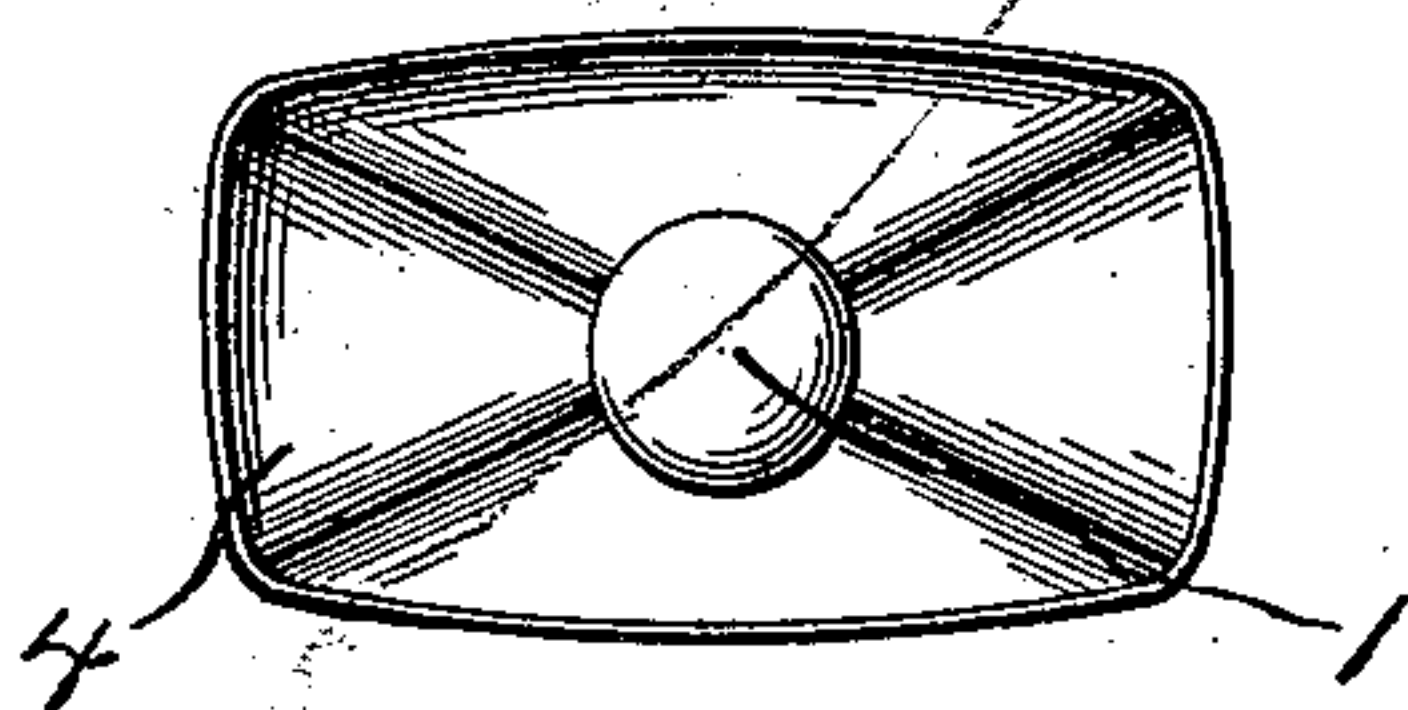
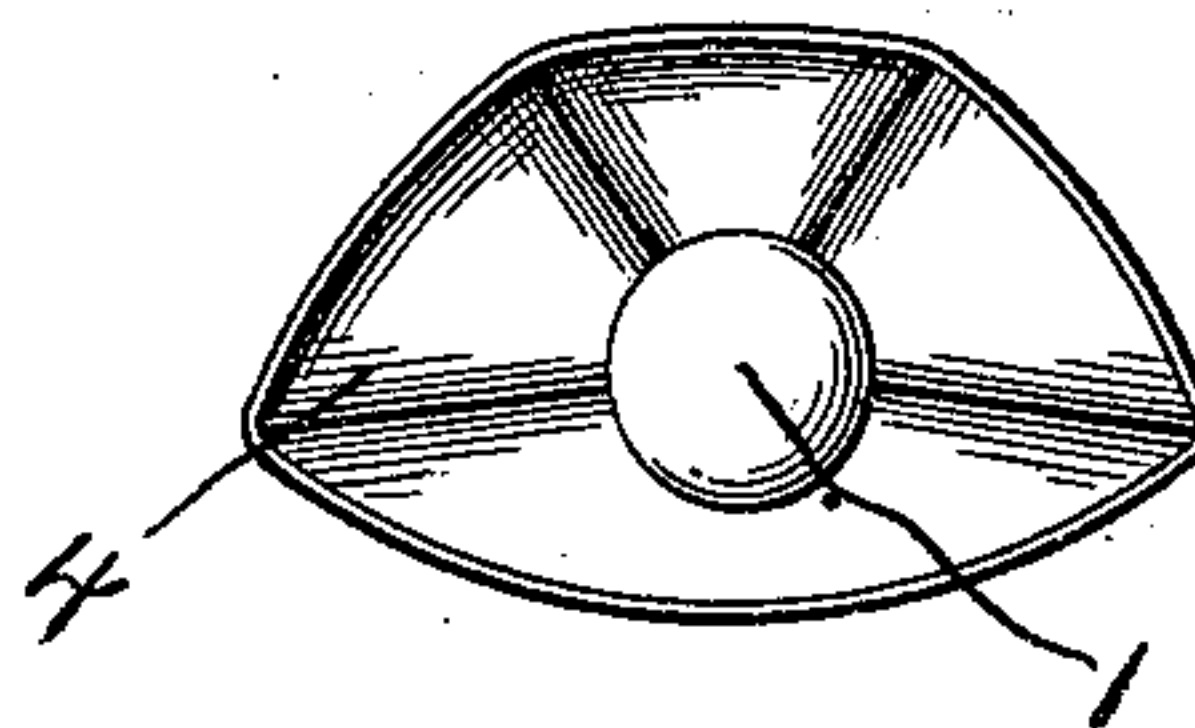


Fig. 5.



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Witnesses

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UNITED STATES PATENT OFFICE.

FRANK LEWIS, OF PLEASANTON, CALIFORNIA.

NOZZLE FOR GARDEN-HOSE.

SPECIFICATION forming part of Letters Patent No. 545,656, dated September 3, 1895.

Application filed June 12, 1895. Serial No. 552,570. (No model.)

To all whom it may concern:

Be it known that I, FRANK LEWIS, a citizen of the United States, residing at Pleasanton, in the county of Alameda and State of California, have invented a new and useful Nozzle for Garden-Hose, of which the following is a specification.

This invention relates to nozzles for lawn or garden hose, and aims to provide a nozzle for spraying the water and which can be readily shaped to throw a spray of required form according to the nature and outline of the plat or place to be watered.

Spray-nozzles for garden-hose have been supplied with cups of substantially conical form, by means of which the jets of water escaping from the body of the nozzle are sprayed. Such cups are rotatably mounted upon the body of the nozzle and are driven by the jets, thereby detracting from their force. In another style of nozzle the body is supplied with a deflector comprising a series of strips which are designed to break up and spray the jets. This is also open to the same objection of detracting from the force of the jets and preventing the water from being thrown to the greatest limit possible if a part of its force were not expended in rotating the cup or by impact against the strips of the deflector.

The present invention aims to combine with a spray-nozzle a flaring or substantially conical-shaped deflector of comparatively thin and pliable sheet material which can be readily fashioned into the desired form and which will retain the shape imparted thereto so as to throw a spray to suit the outline and conditions of the place to be watered.

For a full understanding of the nature and construction of the invention, reference is to be had to the following description and the drawings hereto attached, in which—

Figure 1 is a perspective view of a spray-nozzle constructed in accordance with the principles of the invention. Fig. 2 is a vertical central section thereof. Figs. 3, 4, and 5 represent some of the many forms into which the deflector can be bent.

In the embodiment of the invention a nozzle of any desired pattern and make can be employed so long as it is of the type having lateral discharge-openings. As shown, the

nozzle comprises a body 1, tubular in form and closed at its outer end, and formed in its sides with a series of lateral discharge-openings 2 for the escape of the water in a series of jets. This nozzle can be attached to the garden-hose in any of the usual ways, and is shown provided with a coupling 3 for this purpose.

The deflector 4 is flaring or conical-shaped, and is mounted upon the body 1 so as to encircle the discharge-openings 2, and this deflector is formed of thin and pliable sheet material, such as sheet-copper, annealed brass, or other sheet metal, so that the form of the deflector can be changed to furnish a spray of any required outline. It is of the utmost importance that the deflector be pliable and yet possessed of sufficient rigidity to retain the shape imparted thereto. Hence annealed sheet metal is best adapted for the purpose. The deflector is rigidly held upon the body of the nozzle and is continuous—that is, formed from a single blank struck or otherwise fashioned into a conical or flaring form without providing any slits or strips. When it is required to obtain a spray of contracted form, the deflector is bent so that its edge presents substantially the outline of a rectangle, as shown in Fig. 4. To obtain a spray contracted at one point and expanded at the diametrically-opposite side, the deflector is bent into substantially a triangular form, as shown in Fig. 3, thereby adapting the nozzle for projecting a spray into a corner. Where an extended spray is desired the deflector is spread as much as possible, as shown in Fig. 5. It is obvious that the deflector may be formed into innumerable shapes, according to the caprice of the user, and which will suggest themselves according to the form of spray required. When it is required to throw the water to a distance, the sides of the nozzle are steep or approach the sides of the body nearer than when it is required to attain a spread without any regard to distance.

The nozzle may be attached to a lawn-sprinkling stand as well as to a hose-pipe, as will be readily comprehended.

In its initial form the deflector may be given any required shape. Therefore it is to be understood that changes in the form, proportion, and the minor details of construction may be

resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what
5 is claimed as new is—

As an improved article of manufacture, a spray nozzle for lawn and garden hose, comprising a nozzle body having a series of lateral discharge openings, and a flaring deflector
10 fixedly attached to the nozzle body and formed of pliable sheet material which is adapted to

be bent into a variety of forms and which will retain the shape imparted thereto, substantially as described for the purpose set forth.

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

FRANK LEWIS.

Witnesses:

JAMES CARR,
JEROME H. ARENDT.

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