

UNITED STATES PATENT OFFICE.

GUSTAV HENRY MASSA, OF CORONA, NEW YORK.

EXTENSION RULE OR MEASURING-STICK.

SPECIFICATION forming part of Letters Patent No. 596,896, dated January 4, 1898.

Application filed July 21, 1897. Serial No. 845,351. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV HENRY MASSA, residing at Corona, in the county of Queens and State of New York, have invented certain new and useful Improvements in Extension Rules or Measuring-Sticks and Similar Devices, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to rules, measuring-sticks, and similar devices of this class; and the object thereof is to provide an extensible rule, consisting of a plurality of parts or sections, which are adapted to slide one upon another and which are provided with improved means for limiting the movement thereof and to hold the same in connection.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a side view of my improved rule or measuring-stick, showing the separate sections thereof folded together; Fig. 2, a similar view showing the separate sections extended to their fullest extent; Fig. 3, a plan view of the device as shown in Fig. 2; Fig. 4, a cross-section on the line 4 4 of Fig. 3, and Fig. 5 a longitudinal section on the line 5 5 of Fig. 3.

In the drawings forming part of this specification, the separate parts of my improvement are designated by the same letters of reference in each of the views, and in the practice of my invention I provide a rule or measuring-stick for the purpose herein specified, which consists of separate sections, which are preferably four in number and which are designated by the letter A, and each of these sections is precisely the same in cross-section and three are of exactly the same length, one of said sections being preferably one inch shorter than the others, whereby I provide a rule which is exactly forty-eight inches long. The length of these sections, however, is immaterial, and the length of the rule or measuring-stick is immaterial, and each of said sections is provided in its opposite sides with a groove a , which extends the full length thereof, and sunk into the two central sections at each end are transverse plates a^2 , the ends of which are bent at right angles to the

body portion thereof, as shown at a^3 , and provided with inwardly-directed hooks or extensions a^4 , which fit in the side grooves a of the adjacent sections, and the two outer sections are provided at their inner ends with similar plates a^2 , which are provided at their ends with similar hooks a^4 , which work in the grooves a in the inner sections, and three of said sections are provided at one end with slots a^5 , in which are secured springs a^6 , which are adapted to bear on the ends of the adjacent section when these separate sections of the rule are extended to their fullest extent, as shown in Figs. 2 and 3, by means of the springs a^6 . The separate sections of the rule or measuring-stick are locked at the limit of their extension, and whenever it is desired to fold said sections together, as shown in Fig. 1, the springs a^6 are depressed and the corresponding sections are enabled to slide thereover.

As hereinbefore stated, the separate sections of the rule may be of any desired form in cross-section and they may also be of any desired length, and the scales thereon may be of any desired kind or character.

It will thus be seen that I accomplish the object of my invention by means of a construction which is well adapted to produce the result for which it is intended, and it will also be apparent that changes in and modifications of the construction described may be made without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A rule or measuring-stick consisting of separate sections which are similar in form in cross-section, each of said sections being provided in its opposite sides with a longitudinal groove, and each of said sections being also provided with plates which are sunk into the ends thereof, and which project at the sides, and are bent to form hooks which fit in the grooves formed in the adjacent sections, substantially as shown and described.

2. A rule or measuring-stick consisting of separate sections which are similar in form in cross-section, each of said sections being provided in its opposite sides with a longitu-

dinal groove, and each of said sections being
also provided with plates which are sunk into
the ends thereof, and which project at the
sides, and are bent to form hooks which fit
5 in the grooves formed in the adjacent sec-
tions, and each of said sections with the ex-
ception of one of the end sections being also
provided with a spring which is sunk there-
into, and which is adapted to press on the
10 end of the adjacent section, when said sec-

tions are extended, substantially as shown
and described.

In testimony that I claim the foregoing as
my invention I have signed my name, in the
presence of the subscribing witnesses, this 15
17th day of July, 1897.

GUSTAV HENRY MASSA.

Witnesses:

FRED. MUNZ,

W. J. LIGHT.