Apr. 10, 1923.

1,451,208

B. F. DUNN

TENT TENSION EQUALIZER

Filed May 15, 1920

Fig. 1.

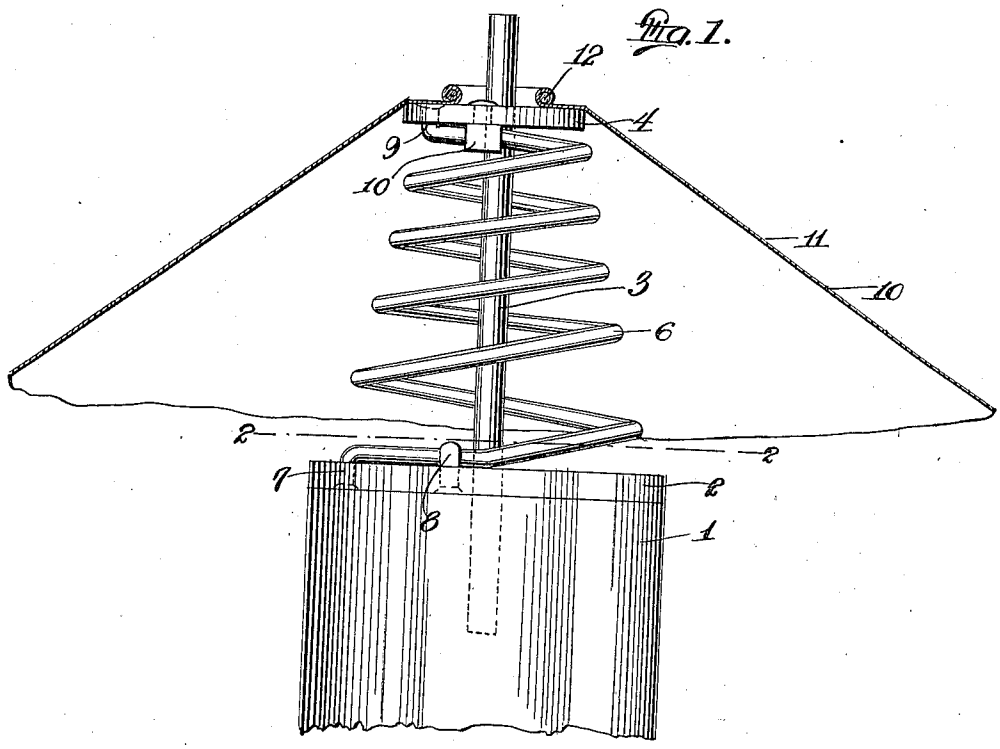


Fig. 2.

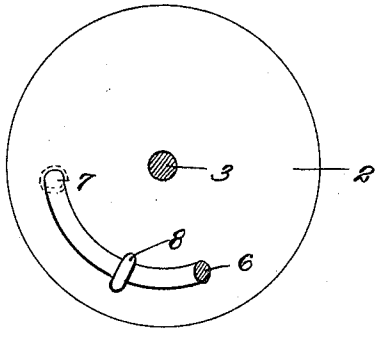
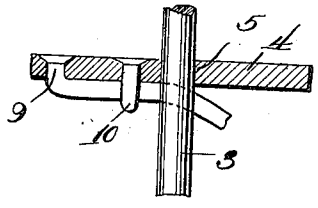


Fig. 3



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INVENTOR.

Patented Apr. 10, 1923. 1,451,208

UNITED STATES PATENT OFFICE.

BENJAMIN F. DUNN, OF ST. PAUL, MINNESOTA.

TENT-TENSION EQUALIZER.

Application filed May 15, 1920. Serial No. 381,576.

To all whom it may concern:

Be it known that I, BENJAMIN F. DUNN, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in a Tent-Tension Equalizer, of which the following is a specification.

This invention relates to tent supports and more particularly to a device to be used on a tent pole for permitting stretching and shrinking of the material from which the tent is constructed.

It is well known that the ordinary material used for constructing tents and canopies stretches and shrinks as it becomes subjected to the changes in the weather and this often causes tearing and ripping of the material when the same is bound and held rigidly by the usual fastening members.

To avoid this, I have provided a tension supporting member to be mounted on the top of the tent pole and engaged with the top of the tent structure so that the stretching and shrinking of the material may automatically occur without damage to the material.

Other objects of the invention will be apparent upon consideration of the following description and accompanying drawings, wherein:—

Figure 1 is a side elevation of the device constructed in accordance with my invention and showing its application to a tent pole and the upper portion of a tent.

Figure 2 is a transverse section taken on the line 2—2 of Fig. 1.

Figure 3 is a detail section of the upper portion of the structure.

Referring to the drawings by numerals, the tent pole 1 is first provided with a metal plate 2 on its upper end which is firmly fixed to the tent pole in any desired manner. A central opening in the plate 2 receives a standard 3 which consists of a rod driven into the end of the tent pole through the opening in the plate 2 so that the rod is firmly embedded in the end of the tent pole and is permitted to project considerably above the top thereof. A movable plate 4 provided with a central opening 5 is slidably fitted on the standard 3. A helical spring 6 is interposed between the plate 2 and the upper plate 4. The lower end of the spring has one end fixed to the lower plate as indicated at 7 and a suitable cleat 8 is provided to assist in holding the lower end of the spring in fixed position on the stationary plate 2. The upper end of the spring has its terminal riveted or otherwise secured to the movable plate 4 as indicated at 9 and a suitable clip or cleat 10 is carried by the movable plate and straddles the upper portion of the spring so that the same is held in fixed position on the movable plate.

The apex of the tent canvas 11 is provided with the usual ring 12 providing a central opening somewhat smaller than the diameter of the movable plate 4 but large enough to permit the end of the standard 3 to project through the opening. The outer or marginal edge of the tent covering is then secured in the usual manner by stakes or the like so that the canvas is firmly held at the desired tension.

The operation of the device will be obvious but it should be pointed out that when the canvas becomes wet and tends to shrink the spring will contract and thus permit the shrinking of the material without tearing or ripping. When the canvas dries and tends to stretch or expand the spring will operate to maintain the canvas at the proper tension in the manner desirable with structures of this character.

It will be obvious that minor changes may be made in the details of construction without departing from the spirit of the invention or the scope of the claim hereunto appended.

What I claim is:

In a tent, the combination of a support for the top of the tent including a stationary plate adapted to be mounted on the tent pole, a standard extending vertically from the plate, a helical spring surrounding the standard and rigidly fastened to said plate, and a second plate slidably mounted on the standard and secured to the upper end of the spring for movement therewith, said plate being engaged by the top of the tent.

In testimony whereof, I have affixed my signature in the presence of two witnesses.

BENJAMIN F. DUNN.

Witnesses:
MILDRED M. ROBERTSON,
ELLIOTT L. BREWER.