

No. 647,374.

Patented Apr. 10, 1900.

A. A. BRENDL.
MATTRESS.

(Application filed Dec. 5, 1898.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1

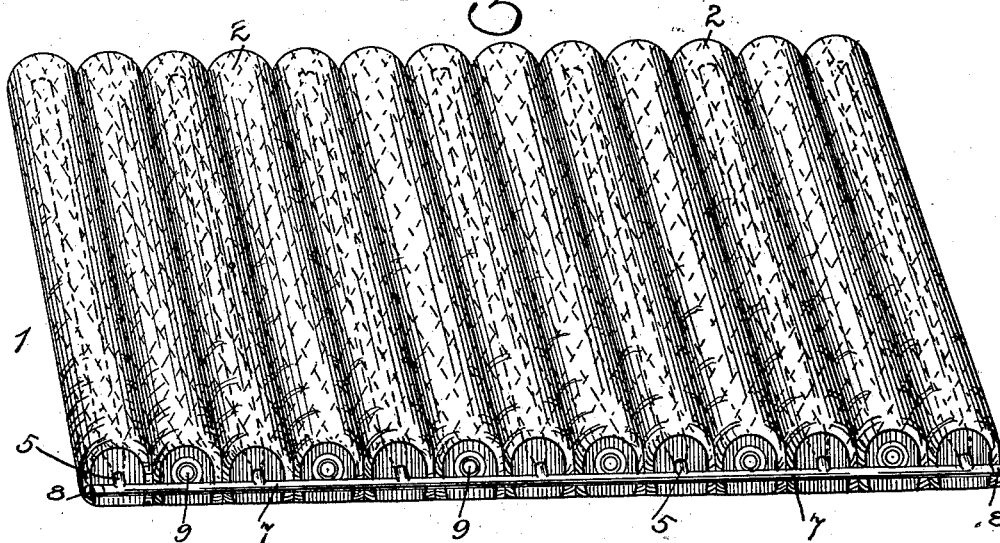
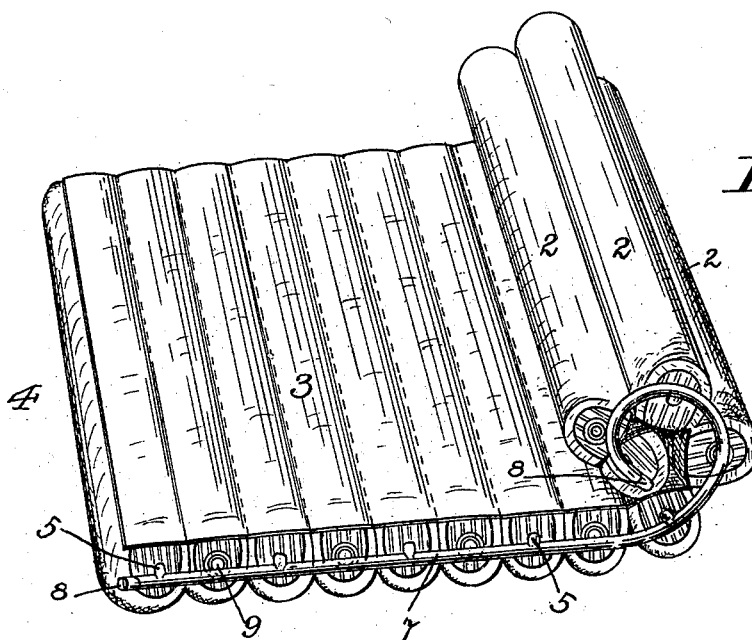


Fig. 2.



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2 Sheets—Sheet 2

Fig. 3.

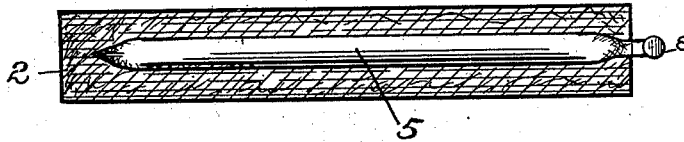


Fig. 4.

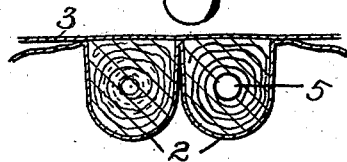


Fig. 5.

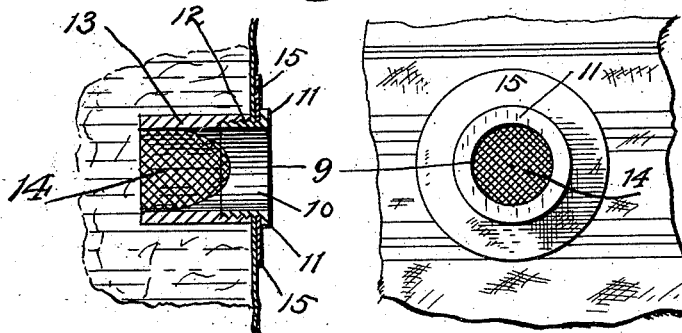
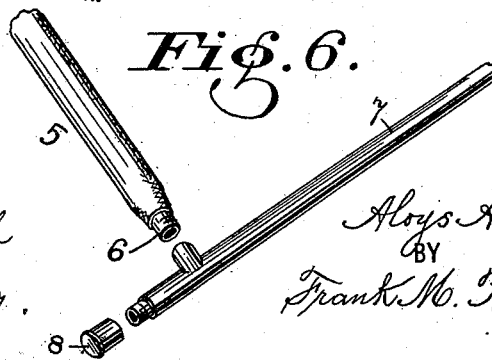


Fig. 6.



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ALOYS A. BRENDDEL, OF PIQUA, OHIO.

MATTRESS.

SPECIFICATION forming part of Letters Patent No. 647,374, dated April 10, 1900.

Application filed December 5, 1898. Serial No. 698,391. (No model.)

To all whom it may concern:

Be it known that I, ALOYS A. BRENDDEL, a citizen of the United States, residing at Piqua, in the county of Miami and State of Ohio, have
5 invented certain new and useful Improvements in Mattresses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable
10 others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in
15 mattresses and their construction; and the principal object sought and attained is to construct a mattress that will not alone be especially useful for invalids in hospitals and for the sick-room generally, but is equally as
20 well adapted for household purposes; and to this end it consists of certain novel features of construction and new combinations of parts, as will be more fully described hereinafter, and pointed out in the subjoined claims, in
25 accordance with the statute in such cases made and provided therefor.

It will be apparent after having described my mattress that some of its many advantages are that it will not spread or break
30 down in the center; that it can be readily and easily handled by rolling up; that, if desired, it may be partially rolled at either end, so as to form a head or foot rest without removing a sick person, and that when its corrugated
35 sections are quilted it presents a surface as warm as feathers and is especially adapted for winter use, while its straight or flat side, not being quilted, forms a cool surface especially adapted for summer use. By reason of
40 its novel construction it is peculiarly adapted for mantel or folding beds, and not being tufted it does not permit of the accumulation of dirt, which can only be removed by an experienced hand.

Referring to the accompanying drawings, illustrating my improved mattress, and in which similar numerals of reference indicate like parts throughout the several views, Figure 1 is a perspective view of my improved
50 mattress looking at the corrugated side. Fig. 2 is a perspective view of my improved mattress looking at the flat side in partial process

of being rolled up ready for handling or transportation. Fig. 3 is a sectional view through one of the corrugations, so as to show one of
55 the branch pipes and its connection with the main or supply pipe. Fig. 4 is a cross-sectional view of two of the corrugated sections. Fig. 5 represents enlarged sectional and plan views of the ventilator in detail; and Fig. 6
60 is a detail view in perspective of a portion of a branch and main pipe, showing the connections.

Referring in detail to my invention by means of the aforesaid numerals of reference
65 as employed in the several views of the drawings, 1 indicates the side of the mattress, which is formed in what may be termed "corrugations" or "sections" 2, preferably semi-circular in form on this side, which when
70 covered with a cotton quilted surface, (instead of ticking,) when desired, (see Fig. 1,) is as comfortable and soft as an ordinary feather bed and adapted more especially for winter use, while the opposite side of said
75 corrugated sections, being flat and unquilted and stitched directly to the plain ticking 3, will form the straight or flat side 4 of the mattress, thus presenting a surface which is cool and comfortable and more especially
80 adapted for summer use. Said corrugations or sections 2 are designed to have a filling made up of any suitable material composed of sheets or strips—as, for instance, strips of burlap—through which sea-moss may be
85 woven, so that said strips may be wrapped or rolled around the branch pipes 5 (see Figs. 3 and 4) for the purpose of securely and firmly supporting said branch pipes, which are made of rubber somewhat similar in form to the inner tube of a pneumatic bicycle-tire. Branch
90 pipes 5 are located in only every alternate one of the said corrugated sections and have one end closed, while the other end is provided with a suitable metallic screw-threaded
95 connection 6, (see Fig. 6,) connecting them with a somewhat smaller main or supply pipe 7, also constructed of rubber of suitable thickness and provided at each end with a metallic screw-threaded cap 8, either one of
100 which may be removed at any time when desired, so that said branch pipes and supply-pipe may be filled with hot or cold water or air by any well-known means, when the said

cap may be replaced, thus regulating the temperature of the bed to either hot or cold, according to the requirements or desire of the occupant. In filling the pipes with water
5 the mattress may be so disposed as to incline, and then by gradually introducing the water the air in the pipes is displaced as the water fills them, thereby preventing a cushion of air forming at their closed ends. It will be
10 obvious that said main or supply pipe may be located on either side of the mattress desired and that when it is desired to let the supply of air or water pass out of the pipes all that is necessary is to remove cap 8 at
15 either end of supply-pipe 7, and when water is used a bucket or other receptacle may be employed to catch the water.

In one or both ends (preferably both) of every alternate corrugated section 2 I place
20 a ventilator 9, as shown in Fig. 5, comprising a cap 10, formed with an angular flange or collar 11 and a neck 12, provided with external screw-threads adapted to engage the internal screw-threads of the body portion
25 13, said body being provided at its inner end with a piece of wire-gauze or other perforated material 14. To the ticking covering the ends of the said corrugated sections, in which are located the ventilators, is securely attached
30 a flat thin leather washer 15 having its opening, which registers with a similar opening in the ticking or cloth, the exact circumference of neck 12, which is inserted therein, and as its screw-threads engage the internal
35 screw-threads of body portion 13, which is on the inside of the ticking, when tightened the ticking and reinforced leather washer will be firmly gripped between the body 13 and annular flange 11 of said ventilator, which will
40 thereby be held in position. It will be here observed that by placing a ventilator at each end of the corrugations it will bring them on each side of the mattress, and the corrugations being but small sections the weight of
45 a person's body in getting in or out of the bed will create sufficient pressure to expel

the air from the yielding sections of the mattress, and then when the pressure is removed fresh air will replace that expelled.

It will be readily understood that when my
50 improved mattress is used with corrugated side up it may have one or two corrugated sections turned or lapped under at either end for a head or foot rest, which will then give the mattress a slight incline, as desired. 55

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A mattress comprising a plurality of transversely-disposed hollow sections flexibly secured together, a suitable yielding filling
60 in the sections, elastic pipes in the filling, and a main pipe communicating with all the pipes in the sections, substantially as described.

2. A mattress, comprising a plurality of transversely-disposed hollow sections having
65 a rounded exterior on one side and flat on the opposite side, a flexible sheet of material covering the flat side of the sections and secured thereto, a flexible filling within the sections, elastic pipes in the filling, and a
70 main pipe having communication with all the pipes in the sections.

3. A mattress comprising a plurality of transversely-disposed hollow sections having
75 a rounded exterior on one side and flat sides and bottoms, a flexible sheet of material covering the under flat sides of the sections and secured thereto, a flexible filling within the sections, elastic pipes in each alternate section, a main pipe communicating with all the
80 pipes in the sections, ventilating-tubes in each alternate section intermediate of those having pipes therein, said ventilators having an open outer end and a screen in the inner end, substantially as shown and set forth. 85

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

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Witnesses:

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