P. FORSBERG.

VENTILATED MATTRESS. Patented May 19, 1896. No. 560,613. Fig. 3. Fig. 2. Fig.5. Witnesses; 999. 6.6:VauDorw. Fig. 4. Paul offlewley his atty

United States Patent Office.

PETER FORSBERG, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR OF ONE-THIRD TO GUST LAGERQUIST, OF SAME PLACE.

VENTILATED MATTRESS.

SPECIFICATION forming part of Letters Patent No. 560,613, dated May 19, 1896.

Application filed October 28, 1895. Serial No. 567,056. (No model.)

To all whom it may concern:

Be it known that I, Peter Forsberg, of Minneapolis, county of Hennepin, State of Minnesota, have invented certain new and useful Improvements in Upholstered Spring-Mattresses, of which the following is a specification.

This invention relates to upholstered springmattresses; and the particular object of my invention is to provide a thoroughly-ventilated upholstered spring-mattress and to arrange for the ventilation by means which will be cheap and economical and thoroughly durable, the same taking the place of other parts, so that the general cost of the mattress is in-

creased but slightly.

To this end my invention consists in the combination, with a suitable frame, of springs arranged thereon, the upholstered top laid upon said springs, means inclosing the top and frame whereby the entrance or exit of air is prevented, and said top being stitched with metallic clenching-tubes, which secure the parts of the top together and each of which 25 performs the function of a ventilating tube or opening in the otherwise solid top.

The invention will be more readily understood by reference to the accompanying drawings, forming part of this specification, and

30 in which—

Figure 1 is a view of the top of a mattress embodying my invention. Fig. 2 is an enlarged view of a portion of the top. Fig. 3 is an enlarged view of a portion of the mattress viewed from underneath. Fig. 4 is an enlarged vertical section of the mattress. Fig. 5 is a detail view of one of the clenching-tubes before the lower part thereof is turned or clenched.

As shown in the drawings, the mattress comprises a frame 2, a portion of which is shown in Fig. 4, which frame has cross-slats 3, upon which the springs 4, of which a large number are used, are secured. On the upper 45 ends of these springs rests the upholstered top made up of the upper cloth or facing 5, the undercloth 6, and the filling of hair or like material 7. The edges of the upper and under cloths or facings are stitched together and 50 preferably to the end and side facings 8. The bottom of the frame is closed to the entrance or exit of air by a cloth or lining 9, which with the sides 8 is preferably of material practically impervious to air. In place of the thread-

stitching ordinarily used in upholstered tops, 55 by which the top is tacked at intervals, I employ metal clenching-tubes 10, (shown in detail in Fig. 5,) composed of a simple tube, the upper end of which is flared out while the lower end is preferably separated into a num- 60 ber of tongues, which after the top is inserted through the upholstering are clenched or bent upward, so that the tube firmly binds together the different parts of the top, taking the place of the usual stitching, and at the 65 same time serving as a ventilating-tube by which air may enter into and leave the mattress. These tubes are employed throughout the top in place of the usual stitching and are so frequent that effectual ventilation is af- 70 forded and the mattress is rendered cool and comfortable. Pressure upon any part of the top of the mattress will act to force air up through all of the tubes in its surface, so that all parts are ventilated and cooled.

The mattress is particularly designed for use in hospitals and for the sick generally, but is equally adapted for general household

Having thus described my invention, I 80 claim as new and desire to secure by Letters Patent—

1. The combination, in an upholstered spring-mattress, of a suitable frame, springs arranged thereon, imperforate sides and bot-85 tom for said mattress, an upholstered top arranged to rest upon said springs, and a series of metal tubes passing through said upholstered top and forming means for securing said top at suitable intervals, and also form- 90 ing ventilating-openings in the top of said mattress.

2. The combination, in a mattress, with a suitable frame, of springs arranged thereon, imperforate bottom and side walls inclosing 95 said springs, an upholstered top secured to the upper edges of said side walls and resting upon the tops of said springs, said top having a series of openings communicating with the interior of the mattress, for the purpose speci- 100 fied.

In testimony whereof I have hereunto set my hand this 19th day of August, A. D. 1895.

PETER FORSBERG.

In presence of— C. G. HAWLEY, F. S. LYON.