May 15, 1945. E. S. NOSTRAND 2,375,941

SOUND REDUCING DEVICE FOR BEDS

Filed March 6, 1943 3 Sheets-Sheet 1

Fig. 1

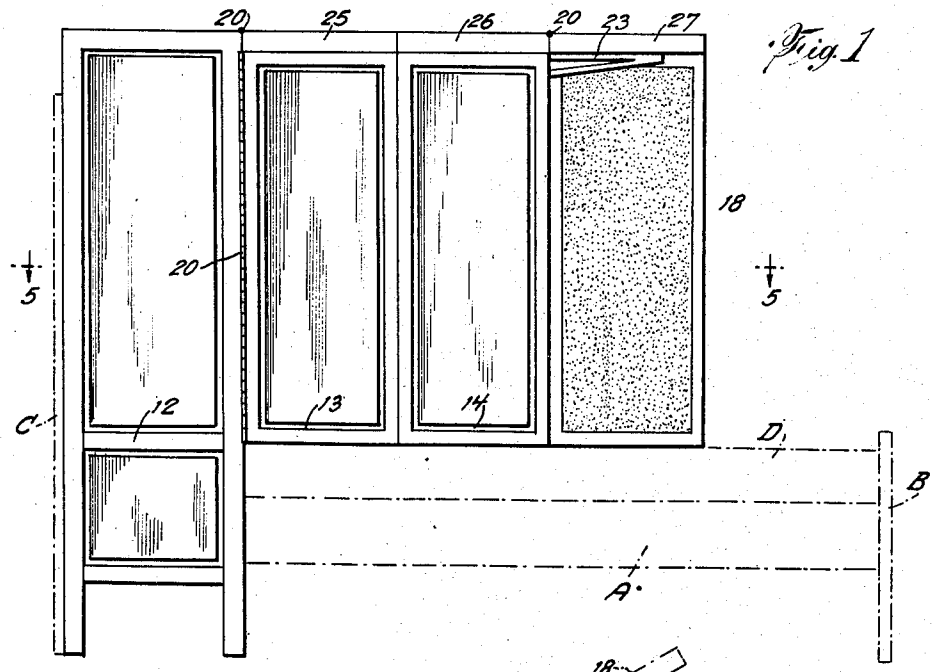
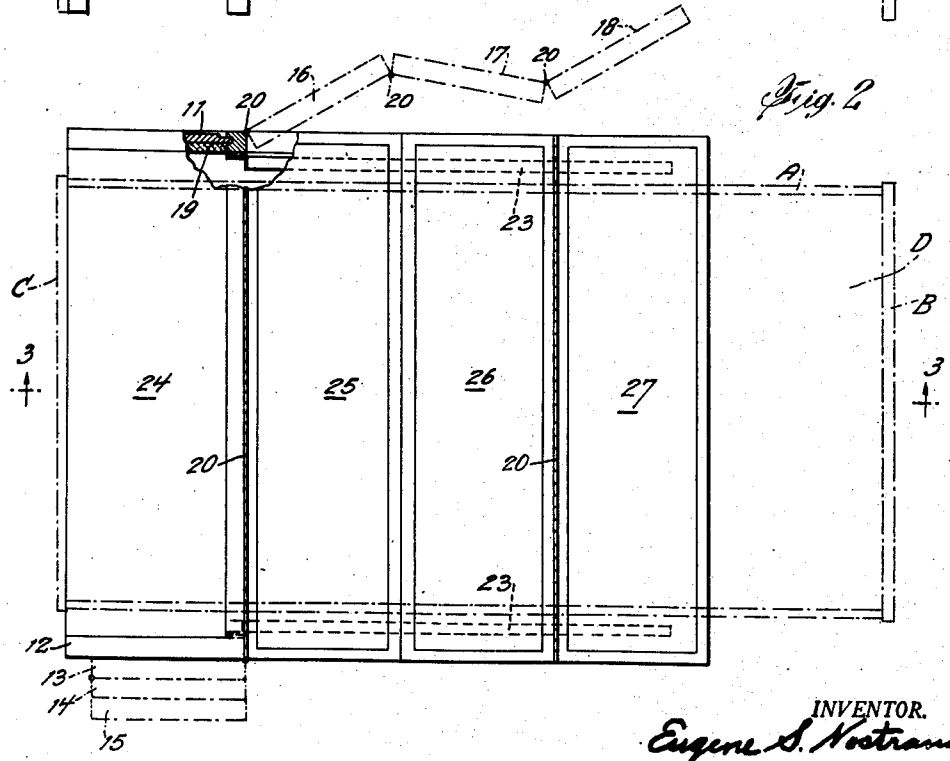


Fig. 2



INVENTOR.
Eugene S. Nostrand
BY
R. I. Hulsinger.
Atty.

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Filed March 6, 1943 3 Sheets-Sheet 2

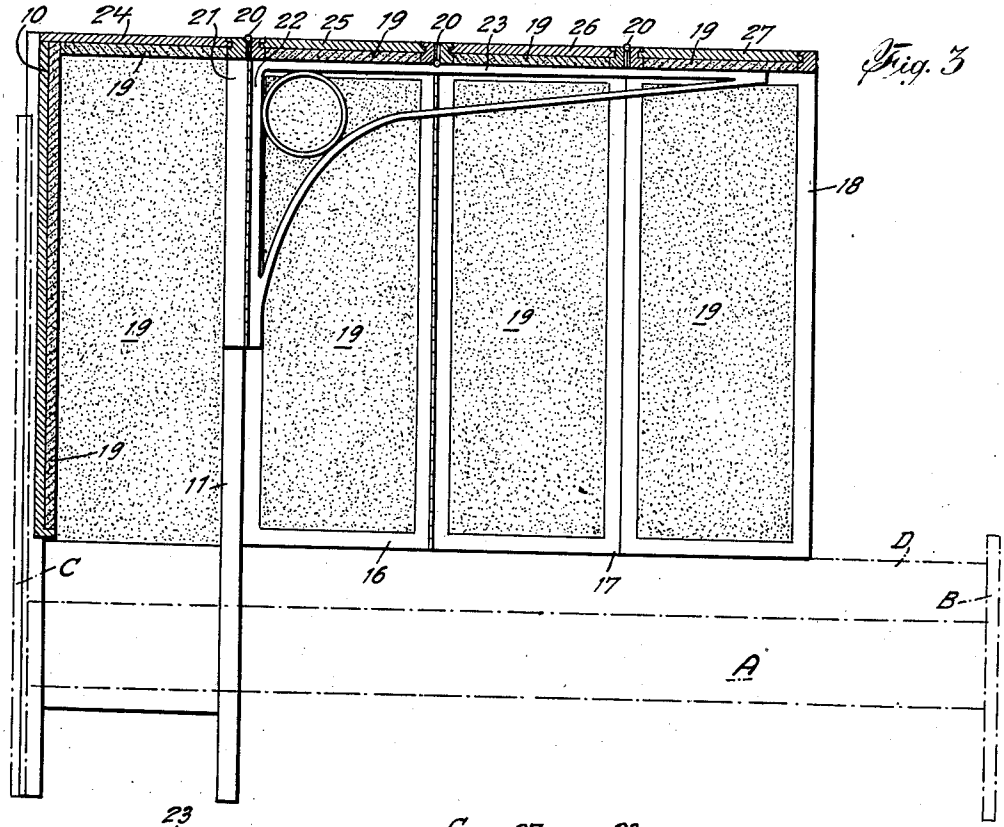


Fig. 3

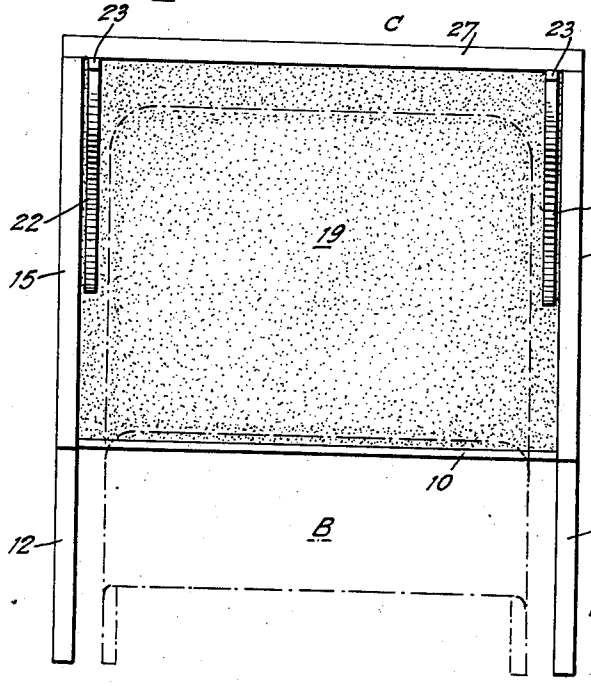


Fig. 4

INVENTOR.
Eugene S. Nostrand
BY
R. D. Hulsizer
atty.

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Filed March 6, 1943 3 Sheets-Sheet 3

Fig. 5

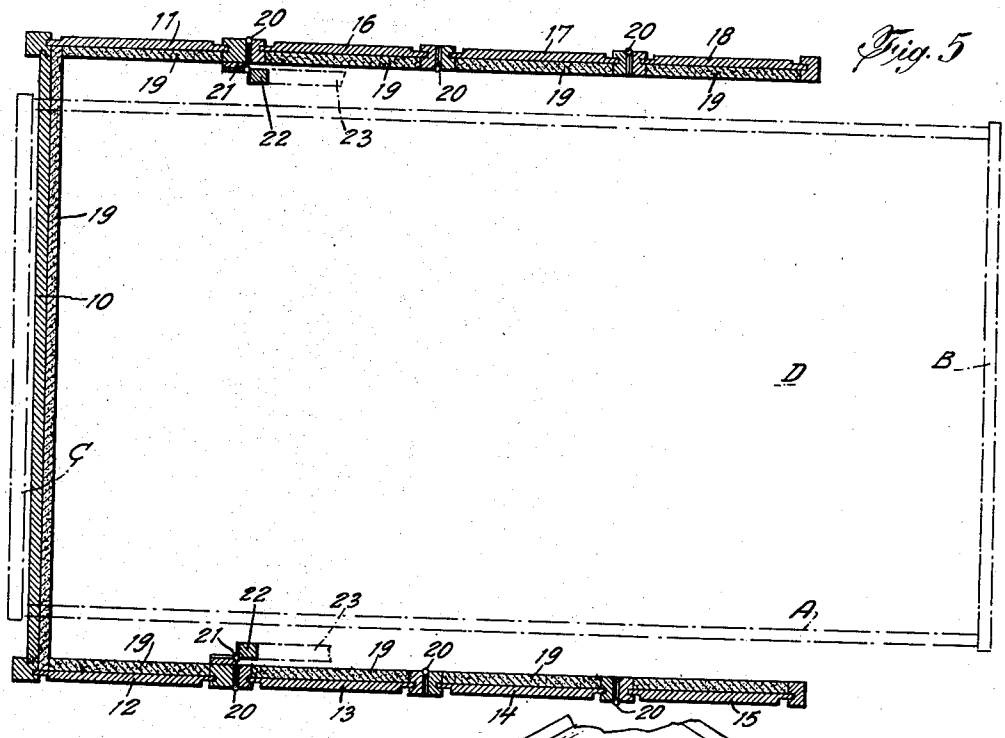
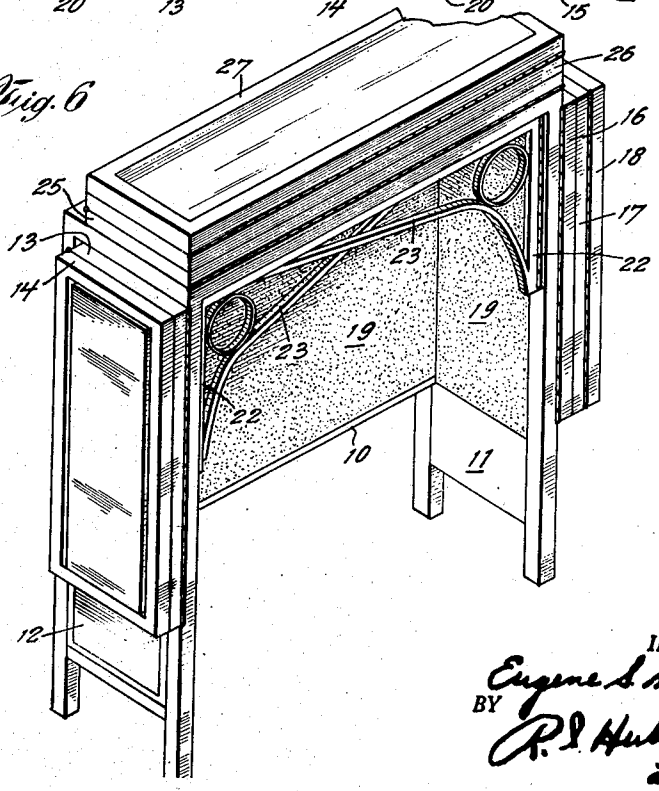


Fig. 6



INVENTOR.
Eugene S. Nostrand,
BY
R. S. Hubinger
Atty.

Patented May 15, 1945

2,375,941

UNITED STATES PATENT OFFICE

2,375,941

SOUND REDUCING DEVICE FOR BEDS

Eugene S. Nostrand, South Orange, N. J.

Application March 6, 1943, Serial No. 478,207

2 Claims. (Cl. 5—330)

This invention relates to new and useful improvements in devices for absorbing or reducing sound when associated with beds or cots or the like.

A main object of the invention is to provide a simple and efficient device or unit which can be readily and easily attached or associated with and removed from a bed or cot for the purpose of preventing the transmission to other sleepers of objectionable sounds which may be due to heavy breathing or snoring.

Another object of this invention is to provide a device which can be stored away easily and occupy little space when not in use but which when used can quickly and easily be associated with the sleeping unit with a minimum of effort on the part of the user.

Further objects, features, and advantages will more clearly appear from a consideration of the specification which follows especially when taken in connection with the accompanying drawings which form part of the specification and which illustrate a present preferred form which the invention may assume in actual practice.

Generally and in rather broad language, the invention comprises a housing having rear, side and top walls adapted to be removably associated with the head of a bed or cot, and open at the front thereof, the inner surfaces of these walls having thereon material which is sound absorbing. The housing is supported with respect to the head of the bed by means of legs or pedestals which enable the device to be moved or slid on to the bed and associated with the head thereof without disturbing the ordinary arrangements thereof and allow the same unit to be easily and quickly removed therefrom. The housing having the front open is also provided with a series of pivoted hinged plates also interiorly provided with sound absorbing substance which can be unfolded to extend along the sides and across the top to form an extended sound-absorbing enclosure when thus extended. The housing is provided with swingable brackets which when swung into position can act as supports for the top plates when thus extended. The pivoted plates and the brackets are capable of being swung back into an inoperative position as shown in Fig. 6 which enables the unit to be easily stored away and to occupy very little space when not in use.

The present preferred form which the invention may assume is shown in the drawings, of which,

Fig. 1 is a side elevation of the device in operative position with respect to a bed;

Fig. 2 is a plan view thereof;

Fig. 3 is a vertical section taken on the line 3—3 of Fig. 2;

Fig. 4 is an end elevation thereof;

Fig. 5 is a horizontal section taken on the line 5—5 of Fig. 1; and,

Fig. 6 is a perspective view of the device with the parts folded back into inoperative position and removed from association with the bed.

This sound-reducing unit shown in the drawings is adapted to be associated removably with beds, cots and the like, and in the drawings a bed is shown having a frame A, a foot board B, and a head board C, with a mattress D disposed on the frame A. Of course if a cot is to be thus associated with the sound-reducing unit, there will be no upwardly projecting foot or head boards.

The unit itself comprises a housing or frame having a rear wall 10, connected side walls 11 and 12, and a top wall 24. The front of this housing is open and the side walls 11 and 12 are provided with downwardly projecting legs forming extensions thereof which support the above mentioned walls at a proper level so that they partly encircle the head of the bed and are disposed at such a level that the unit can be slid or moved to a position, as shown in Fig. 1, adjacent the head of the bed and can be as easily removed therefrom.

The above mentioned rear, side and top walls of the housing are provided with inner linings of sound absorbing or reducing material which is numbered 19 throughout the specification. This material is not specifically nominated since there are many materials which may be employed.

In order to extend the zone of sound-reduction around the head of the sleeper, the top and side walls are associated with a series of pivoted plates which can be extended when in use thus to extend the protected portions. For instance the side wall 12 has hinged thereto and to each other a series of plates 13, 14, and 15 connected by suitable hinges 20 which can when in use be extended as shown and when not in use can be folded back. Similarly the side wall 11 has associated therewith pivoted hinged plates 16, 17, and 18. The top wall 24 also has associated therewith pivoted extension plates 25, 26, and 27 as shown likewise extensible and foldable. All of these pivoted foldable and extensible plates are provided in their surfaces facing the bed with the sections of insulating material 19 above mentioned.

In order to support the top plates 25, 26, and 27 when they are moved to their extended operative position I provide a pair of brackets which

are hinged by a plate 21 to the forward edge of the side plates 11 and 12 and have a vertical arm 22 to which is connected a horizontally extending arm 23. These brackets are capable of being disposed as shown in Fig. 6 swung inwardly within the housing but can be swung outwardly as shown in Fig. 3 to lie underneath the top plates 25, 26, and 27 to support the same.

It will also be noticed that when the lateral plates are extended they also lie below the lateral edges of the top plates and thus form therewith a relatively tight closed housing in which the inner surfaces are provided with sound-reducing or absorbing material extending from the head of the bed to a predetermined distance toward the foot thereof.

It will therefore be noticed that I have provided a simple and efficient device which can be readily attached or associated with a bed or cot and as readily removed therefrom to encircle the head of the bed with a housing which is provided with sound-absorbing inner surfaces whereby the sound produced by abnormally heavy breathing or snoring can be substantially reduced.

While the invention has been described in detail and with respect to the preferred form shown, it is not to be limited to such details and forms since many changes and modifications may be made in the invention without departing from the spirit and scope of the invention in its broadest aspects. Therefore it is not desired to limit the invention to the details and forms shown except as the invention may be limited by the scope of any one or more of the appended claims.

What I claim is:

1. A sound reducing unit for beds and the like comprising a housing having rear, side, and top walls provided with inner sound-absorbing surfaces, said unit adapted to be removably disposed closely adjacent the head of a bed with the rear and side walls disposed closely adjacent the edges of the bed, two series of foldably connected plates respectively hinged to each side wall and normally foldable back thereagainst and adapted to be extended along the sides of the bed closely adjacent the edges thereof, a further series of foldable plates hinged to said top and normally foldable back upon the top, said further series of plates being adapted to be extended over the extended two series of plates to form therewith an extensible enclosure over said bed, all said series of plates being lined interiorly with sound deadening material.

2. A sound reducing unit for beds and the like comprising a housing having top, side and rear walls, said side and rear walls adapted to be closely disposed along the rear and side edges of the head of the bed, two series of foldably connected plates respectively hinged to each side wall and normally foldable back thereagainst and adapted to be extended along the sides of the bed closely adjacent the edges thereof, a further series of foldable plates hinged to said top and normally foldable back upon the top, said further series of plates being adapted to be extended over the extended two series of plates to form therewith an extensible enclosure over said bed, all said series of plates being lined interiorly with sound deadening material, and brackets pivoted on the housing and adapted to be swung out toward the foot of the bed along the sides thereof to support the top extensible plates.

EUGENE S. NOSTRAND.