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(12) **United States Patent**
Krotova

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(54) **BED SHEET SYSTEM**

FOREIGN PATENT DOCUMENTS

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(57) **ABSTRACT**

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A bed sheet system for application to a mattress having rounded corners, a nominal mattress width between opposite sides of mattress, a nominal mattress length between opposite ends of the mattress, and a nominal mattress height. The bed sheet system includes a bottom flat fitted sheet and standard dimension top unfitted sheet. The unfitted top sheet may be attached by fastening along the foot-hem to the bottom sheet, or not attached with placement head-mark and size-mark, and corners marks to guide properly centered position with proper amount overhang on the sides and ends. The bottom flat-fitted sheet includes a rectangular material without cutouts or with cutouts at corners of the sheet on intersection of reference lines, and which according to the calculation, has geometric layout including a central part designed according to calculations to cover top of mattress, where length and width of central part are smaller two inches, than nominal length and width of mattress, because arches as 1/8 of circle with approximately five inches radius are smaller one inch compare to five inches radius of mattress's corners. Because the physical edge of mattress is eight inches ($2\pi \times 5''$ radius of mattress/4=8'') smaller than sum of nominal rectangular mattress' dimensions, the central part has been established by calculation as rectangular, which perimeter is equal curved border of mattress and is depicted in reference lines. The central part is surrounded by two ends and two sides for overhang ends and sides of mattress, which heights are one inch bigger than height of mattress designed for one inch of reinforced hem on the perimeter of bottom fitted sheet for the placement of fasteners at the tension points as offset to the reference lines, and when pulling with force together the fasteners causes reinforced hem to slip under corners of mattress, and keeps the sheet on the mattress without slipping off. The size and dimension of a fitted bed sheet are determined for each of various sizes of mattress by calculation for the central part and height of the mattress with addition one inch for the reinforced hem.

Related U.S. Application Data

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A47G 9/04 (2006.01)
A47G 9/02 (2006.01)

(52) **U.S. Cl.**
CPC *A47G 9/0246* (2013.01); *A47G 9/04* (2013.01)

(58) **Field of Classification Search**
CPC *A47G 9/04*
USPC 5/482, 486, 495-497
See application file for complete search history.

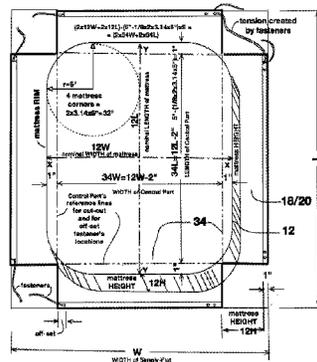
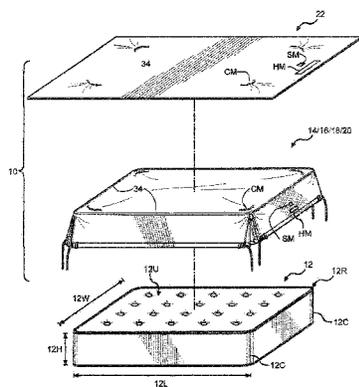
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(Continued)

1 Claim, 19 Drawing Sheets



Total Length of mattress PBM is EQUAL sum of Length of Central Part of SHEET

$$L = (2 \times (12W - 2 \times 1'') + (9'' - 12 \times 0.25 \times 1.667 \times 2) + (2 \times 34W - 2 \times 24L))$$

$$W = (12W - 2 \times 1'') + (12H + 1'' + 12H + 1'') = (34L - 2 \times (12H + 2''))$$

$$L = (12L - 2 \times (1'' + 12H + 1'' + 12H + 1'')) = (34L - 2 \times (12H + 2''))$$