Nov. 5, 1929. F. R. GABLE 1,734,803

PORTABLE SHELTER

Filed Aug. 27, 1927 2 Sheets-Sheet 1

Fig. 1.

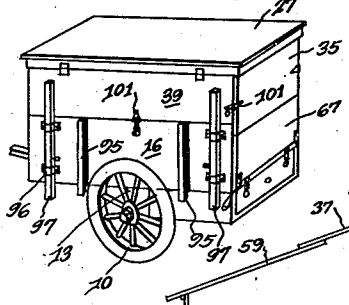


Fig. 2.

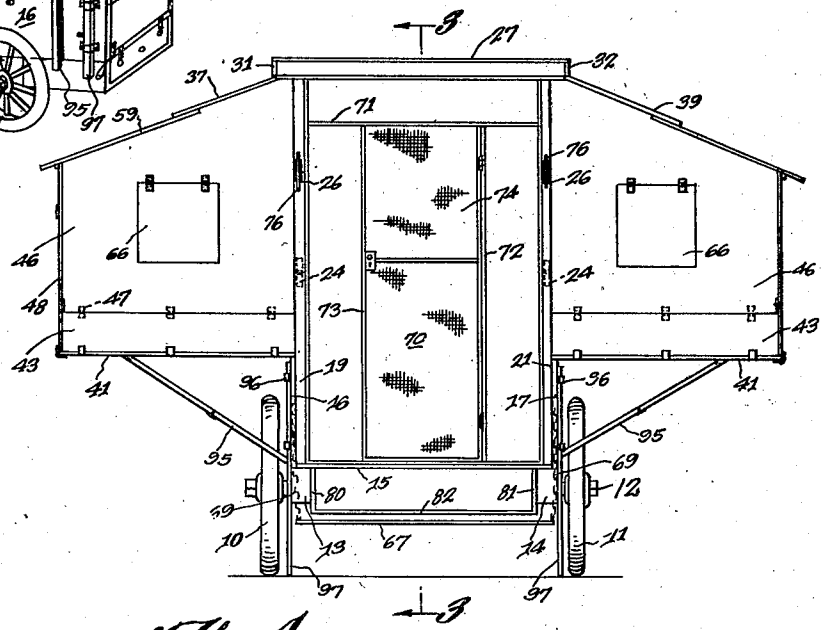
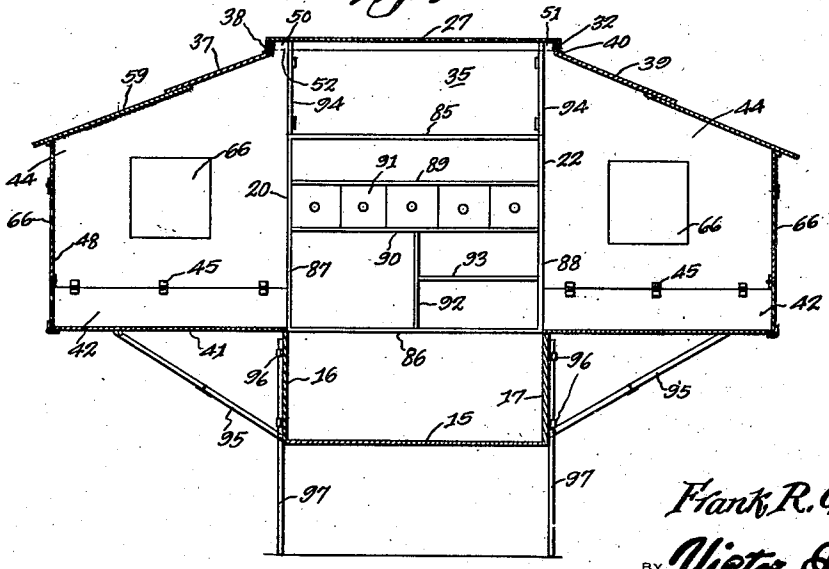


Fig. 4.



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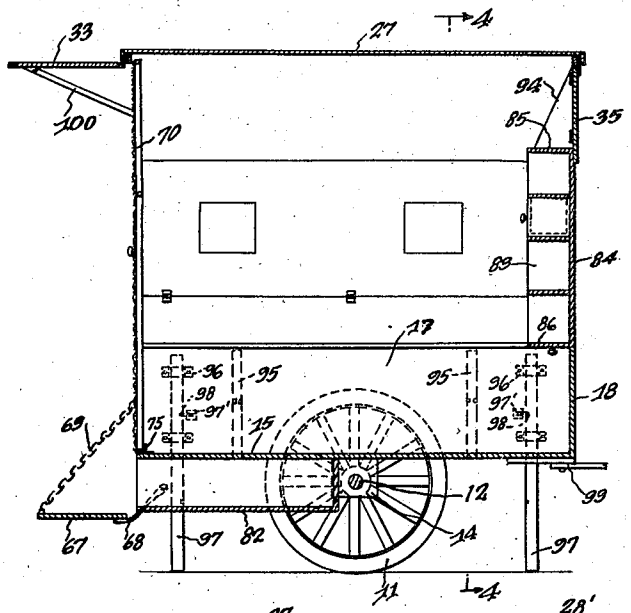


Fig. 3.

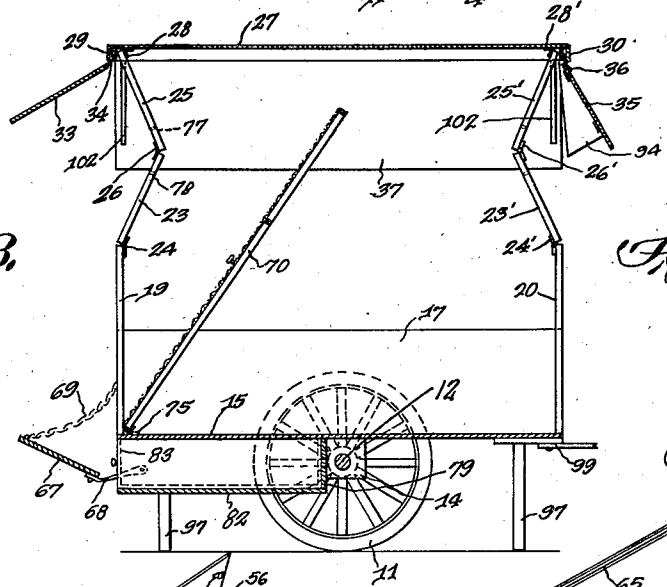


Fig. 8.



Fig. 5.

Fig. 7.

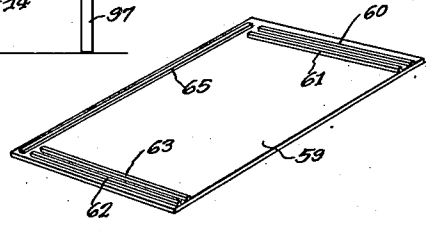
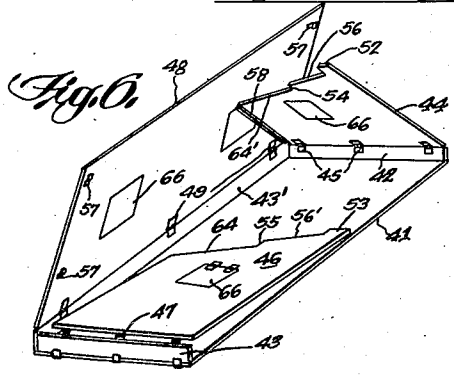


Fig. 6.



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Patented Nov. 5, 1929 1,734,803

UNITED STATES PATENT OFFICE

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PORTABLE SHELTER

Application filed August 27, 1927. Serial No. 215,993.

This invention relates to certain novel improvements in portable shelters and is particularly adapted for use as a camping outfit or field office.

Considerable traveling is done at the present time in automobiles and the traveling public have found it advantageous to camp en route rather than stop at taverns. This method of travel has been comparatively difficult due to the fact that no expeditious arrangement was provided whereby the camping facilities could be transported. It is therefore the salient object of my invention to provide a camping outfit which may be used by automobile tourists and which will be arranged on a suitable truck which may be attached to the automobile.

Another object of the invention is to provide a shelter which will embody an arrangement such that comparatively spacious sleeping quarters shall be provided.

A further object of the invention is to provide a shelter which will embody an arrangement providing cooking facilities.

A still further object of the invention is to provide a shelter which will embody compartments in which clothing and analogous supplies may be transported.

A still further object of the invention is to provide a shelter embodying the above mentioned features which may be collapsed into a very compact device so as to facilitate transportation thereof.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings, showing the preferred form of construction and in which:

Fig. 1 is a perspective elevational view of a preferred embodiment of my invention wherein the parts are shown in position ready for transportation;

Fig. 2 is a rear end elevational view of the embodiment of the invention illustrated in Fig. 1 in unfolded or set up position;

Fig. 3 is a sectional view taken substantially in the plane of the line 3—3 on Fig. 2;

Fig. 4 is a sectional view taken substantially in the plane of the line 4—4 on Fig. 3;

Fig. 5 is a longitudinal sectional view depicting the manner in which the parts are moved from the position indicated in Fig. 1 to the position indicated in Fig. 3;

Fig. 6 is a perspective detail view of the sleeping compartments in semi-unassembled position;

Fig. 7 is a perspective detail view of a section of the roof of the sleeping compartments; and

Fig. 8 is a perspective detail view of a locking element employed in the device.

In the drawings wherein the preferred embodiment of my invention is illustrated, I depict the shelter as being mounted on two wheels but it is to be understood that this is in no way intended to be a limitation of my invention, for any suitable truck arrangement might be provided. In the present instance wheels 10 and 11 are mounted on an axle 12 which is journaled in bearings provided in the blocks 13 and 14. The blocks 13 and 14 are secured to the floor 15 of the shelter in any desired manner. It is to be understood that a suitable spring arrangement might be used in place of the construction shown and still not depart from the purview of my invention.

Secured to the floor board 15 are upwardly protruding side boards 16 and 17 and at the front end of the device an upwardly protruding board 18 is provided. Secured to the floor board 15 at the respective corners thereof are upwardly protruding posts 19, 20, 21, and 22. These posts protrude a short distance above the side boards 16 and 17 and the end board 18 and are fixedly secured thereto. As is apparent from the drawings the side boards 16 and 17 and the end board 18 are of equal height. Referring to Fig. 5 it may be seen that a post section 23 is positioned above the post 19 and is hingedly secured thereto by the hinge 24 so as to be movable toward the interior of the shelter. Positioned above the post section 23 is a post section 25 which is hingedly secured to the post section 23 by a hinge 26 so as to be movable toward the exterior of the shelter. A similar

construction is provided for each of the posts as is indicated above the post 20 wherein the section 23′ is hingedly secured to the post 20 by the hinge 24′ and the section 25′ is hingedly secured to the section 23′ by the hinge 26′. This structure is such that when the device is in the folded position indicated in Fig. 1 the post section 23 is positioned so as to be juxtaposed to the post 19 and the section 25 is positioned so as to be juxtaposed to the section 23, this structure being carried out in each of the posts. The posts and the collapsible sections mounted thereabove are adapted to be of a length sufficient to give a desired height to the shelter. A roof section 27 is secured to the post section 25 by the hinge 28 and the hinge 28′ serves to secure this roof section 27 to the post section 25′ and a similar construction is provided at the top of the remaining posts so as to mount the roof section 27 in position. As is clearly shown in the drawings, the roof section 27 includes downwardly projecting end portions 29 and 30 and downwardly protruding side portions 31 and 32. These downwardly protruding portions extend for only a short distance and serve to provide an eave like structure. Referring to Fig. 5 it may be seen that a wall 33 is hingedly secured to the downwardly protruding portion 29 by the hinge 34 and that the wall 35 is hingedly secured to the downwardly protruding portion 30 by the hinge 36. In Fig. 4 it may be seen that the wall 37 is hingedly secured to the downwardly protruding lip 31 by the hinge 38 and that the wall 39 is hingedly secured to the downwardly protruding portion 32 by the hinge 40. When the parts are in the position indicated in Fig. 1 the wall structures just described will cooperate with the wall structures 16, 17, and 18 to completely enclose the device.

When the parts are unfolded so as to elevate the roof section 27 in the manner described it is apparent that the walls 33, 35, 37, and 39 will be moved away from the walls 16, 17, and 18 so as to provide a space therebetween. Into this space the sleeping compartments are adapted to be inserted in such a way that they will be disposed extraneous of the structure included between the posts 19, 20, 21, and 22. In Fig. 6 one of these sleeping compartments is illustrated and it may be seen that they include the bottom wall 41 which has upwardly protruding lips 42, 43, and 43′ provided on both ends and one side thereof. The side of the bottom wall 41 not having a lip portion formed thereon is adapted to be positioned adjacent the posts on the side thereof to which it is adapted to be attached. An end wall 44 is provided for the sleeping compartment which is hingedly attached to the upwardly extending lip 42 by the hinges 45. An end wall 46 is provided which is adapted to be hingedly secured to the upwardly extending lip 43 by the hinges 47. A side wall 48 is provided which is hingedly secured to the lip 43′ by the hinges 49. When these structures are being transported the device is in folded position and the end walls 44 and 46 are folded down upon the bottom wall 41 and the side wall 48 is folded so as to be disposed thereabove and these structures are then inserted into the shelter in the space between the posts.

As is best shown in Fig. 4 the lips 31 and 32 are spaced away from the posts so as to define spaces 50 and 51 therebetween. The sleeping compartment illustrated in Fig. 6 is adapted to be fitted onto the left side of the shelter when said shelter is viewed as shown in Fig. 4. By referring to Fig. 6 it may be seen that the upper edges of the end walls 44 and 46 are arranged so as to slope downwardly toward the outside edge thereof or better toward the side wall 48. Along the inner edge of the end wall 44 an upwardly extending lug 52 is provided and a similar lug 53 is provided on the end wall 46. The remaining portion on the upper side of the end walls includes a step formation so that portions thereof are disposed in spaced apart parallel planes so as to define the shoulders 54 and 55. When the device is to be positioned the edge of the bottom wall 41 not having an upwardly extending lip thereon is positioned on the upper edge of the side wall 16. Then the end walls 44 and 46 are moved outwardly in such a manner that the lug 52 will enter the space 50 and the lug 53 will enter a similar space at the opposite end. In this manner the sleeping compartment is securedly anchored in position. It is apparent that the wall 37 will be swung upwardly and will bear against the surface 56 of the end wall 44 and the surface 56′ on the end wall 46. From this it is apparent that the wall 37 will serve to partially close the open upper side of the sleeping compartment. As is best shown in Fig. 6, L-shaped angle clips 57 are mounted on the side wall 48 juxtaposed the side edges thereof and are arranged so that their open sides extend outwardly. Strips such as the strip 58 on the end wall 44 are provided which are adapted to be inserted into these clips when the side wall 48 is fitted into the position shown in Fig. 4 and in this manner the side wall is retained in position.

It is apparent that the upper side of the sleeping compartment will be open between the edge of the wall 37 and the side wall 48. In Fig. 7 a roof section 59 is depicted which is adapted to close this space. Spaced apart strips 60 and 61 are mounted on the roof section 59 adjacent the edge thereof and these strips are spaced apart so as to define a space therebetween. Strips 62 and 63 are mounted on the opposite end of the roof section 59 and these strips are also spaced apart so as to de-

fine a space therebetween. When the roof section 59 is mounted in position the sections 64 and 64′ of the upper surface of the end walls 44 and 46 are fitted into the spaces between these strips. Along the outer edge of the roof section 59 a strip 65 is provided which abuts the end wall 48 when the roof section is fitted in position. It is apparent that the inner edge of the roof section 59 will abut the shoulders 54 and 55 and as is shown the wall 37 extends beyond this point so as to effectively seal this joint. Due to the downwardly sloping construction of this roof it is apparent that rain fall will be drained therefrom and it will be prevented from entering the sleeping compartment by the overlapping of the wall 37 above the roof section 59. Suitable windows such as 66 may be provided in the end walls 44 and 46 and the side wall 48 and these are preferably arranged so that they may be swung outwardly for purposes well understood. It is to be understood that another sleeping compartment substantially similar to that described, but oppositely disposed will be mounted above the side wall 17 in the same manner.

The foregoing construction describes the closures for the side walls. Hereintofore no mention has been made of the end wall 67 which is hingedly secured in position by suitable brackets such as 68. As is shown in Fig. 1 when the parts are in closed position the end wall 67 is disposed so as to be in alignment with the side walls 16 and 17 and the end wall 18. However, when the parts are in open position the end wall 67 is swung down in the position illustrated in Fig. 3 and serves as a step so as to afford easy entrance into the shelter. Suitable retaining elements such as the chains 69 limit the downward movement of this step and these chains are preferably removably secured in position and they extend from the side walls 17 and 16 to the step 67 as indicated. Referring to Figs. 2 and 5 it may be seen that an end frame 70 is provided which is substantially rectangular in form and is arranged so as to close the space defined between the posts 19 and 21 and the floor 15 and the roof 27. Spaced away from the upper side of the frame 70 is a horizontally disposed bar 71. Spaced away from each of the side members of the frame 70 and extending between the bar 71 and the bottom frame member of the frame 70 are posts 72 and 73. A door 74 is hingedly mounted between these posts. As is best shown in Fig. 4 the frame 70 is hingedly secured to the floor 15 by the hinges 75. When the parts are in folded position the frame 70 is disposed above the floor 15 and as the parts are assembled the frame 70 is swung up to the position best illustrated in Fig. 3.

It is apparent that since the posts which support the roof sections are collapsible, some means must be provided for maintaining these posts in an upright position. In Fig. 8, a substantially U-shaped member 76 is illustrated which is adapted to be fitted into the holes 77 and 78 (Fig. 5) which are provided in the post sections 25 and 23. A similar construction is provided adjacent each of the hinge sections and it is apparent the U-shaped member will prevent collapsing of these posts.

Disposed below the floor 15 is a compartment which is defined by the rear wall 79, side walls 80 and 81 and the bottom wall 82. This compartment is open toward the rear of the device as illustrated and is adapted to receive a frame 83 which will be disposed in this compartment in the form of a drawer. The frame 83 is adapted to be removed from the compartment described and is adapted to be inserted at the forward end of the device as best illustrated in Fig. 3. This frame includes a bottom wall 84, end walls 85, and 86, and side walls 87 and 88. Disposed away from the end wall 85 and extending parallelly thereto is a partition 89. Spaced away from the partition 89 and extending parallelly thereto so as to define a compartment therebetween is a partition 90. In the compartment between the partitions 89 and 90 a plurality of drawers 91 are mounted. A vertically disposed partition 92 which is located at substantially the midpoint between the side walls 87 and 88 extends between the partition 90 and the end wall 86. A partition 93 extends between the partition 92 and the side wall 88 and is spaced away from the partition 90 and the end wall 86. It is apparent that the construction just described divides the frame 83 into a plurality of compartments. While the manner of dividing this frame 83 which has been described has been found to be advantageous it is to be understood that any other suitable arrangement might be used. The frame 83 is adapted to be disposed above the end wall 18 so as to close the front side of the shelter. Suitably shaped retaining blocks 94 are mounted on the inner side of the wall 35 and one side of these retaining blocks is adapted to engage the upper side of the frame 83 when it is inserted in position above the end wall 18 and in cooperation with the portion of the wall 35 which extends below the upper end wall of the frame 83 serve to retain the frame 83 in position. It is apparent that the frame 83 may be mounted in position so that the open side of the compartments therein may be disposed either toward the interior of the shelter or toward the exterior thereof. The frame 83 is adapted to house the cooking implements when the device is employed as a camping outfit and for this reason the frame 83 is arranged so that it may be mounted either toward the interior or exterior of the housing so that in inclement weather cooking may be carried on in the in-

terior of the shelter while in pleasant weather cooking may be done exteriorly of the shelter.

The upwardly protruding lips provided around the sleeping compartment serve to retain the bedding in position and this may be of any desired form. As is clearly shown in Fig. 4 suitable brace rods 95 may be provided which will extend between the bottom walls 41 and the side walls 16 and 17 so as to more rigidly secure the sleeping compartments in position.

When the device is mounted for transportation on two wheels as described it is apparent that some means must be provided whereby the shelter may be rigidly mounted in position. In the present instance I show U-shaped retaining elements 96 on the side walls 16 and 17 in which suitable anchoring stakes 97 are slidably mounted. In order to fix the anchoring stakes in downward position I provide suitable securing elements such as 97′ which are adapted to have a portion which extends into suitable openings 98 provided in the anchoring stakes 97. When the parts are in folded position the anchoring stakes are slipped upwardly and serve to retain the walls which are hingedly secured to the mid portion against the frame so as to properly support the device.

Suitable attaching means are provided such as the hook elements 99 which are mounted toward the front of the device under the floor 15 so as to afford means of transporting the device.

The wall 33 is swung away from the housing and brace rod 100 is provided so as to hold it in position and it therefore serves as a shelter for the door 74.

The frame work may be covered with any suitable material such as veneer wood, canvas or analogous material, the only limitation placed on this material being that of weight but I have found so called three ply veneer wood to be advantageous inasmuch as it is comparatively strong and meets the requirement of being light.

As is best shown in Fig. 1 suitable locking elements such as 101 may be provided in order that the apparatus may be locked so as to prevent theft.

In Fig. 5 I have shown strips 102 as being mounted on the side wall 37 and these strips are adapted to engage the end walls 44 and 46 when the sleeping compartment is mounted in the manner described.

In using the device suitable attaching means are employed for securing the apparatus in position to be towed by an automobile or similar vehicle.

These attaching means are fastened to the securing element 99. When a point is reached at which the user decides to camp the device is brought up to a suitable level point and the retaining elements 97′ are retracted and the stakes 97 are brought into engagement with the ground and are fixedly secured. Then the step 67 is dropped down into position and the retaining elements 69 are secured in the manner described. Next the roof portion 27 is elevated by the unfolding of the supporting posts and the securing elements 76 are positioned in the manner described. Then the sleeping compartments are withdrawn from the space enclosed by the posts and these sleeping compartments are set up in the manner described and the roof portions 59 are also withdrawn from the compartment and are positioned. Then the frame 83 is withdrawn from its compartment and is inserted in the manner described and then the device is in usable condition. The frame 70 will be withdrawn from engagement with the floor 15 and will be set up in the manner described and be locked in position. The device is then in usable condition.

Upon disassembling the device the frame 83 is withdrawn from position over the end 18 and is inserted in its compartment. The frame 70 is then dropped back to position so as to be disposed over the floor 15 and the sleeping compartments and other detachable elements are folded into their most compact sizes and they are then inserted into the compartment defined by the post 19, then the securing elements 76 are withdrawn and the roof 27 is dropped down so that the device assumes an appearance such as is depicted in Fig. 1. Then the anchoring elements are retracted and anchored in position as described and if employed, the locking devices 101 are fitted into position.

From the foregoing it is apparent that I have provided a device which may be expeditiously transported and one which is very compact in size. A plurality of compartments are provided which may be used for the storing of cooking utensils and articles of wearing apparel and other analogous things.

The step 67 is retracted so as to close the rear end of the compartment so as to lock the loose appurtenances in the chamber.

Further it is apparent that the device may be very expeditiously set up or taken down.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification, without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claim.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:

A device of the character stated including a platform, a wheel structure for supporting said platform, upright posts on said plat-

form including foldable sections, a roof member carried by the upwardly disposed ends of said posts, upstanding side members around said platform and said posts, structures providing compartments including a lower wall having rails extending upwardly around the edges thereof on three sides thereof, the side of said lower wall not having a rail provided thereon being disposed over the upper edges of the upstanding members around said platform on the sides thereof, brace structures for supporting said lower wall, a wall hingedly attached to the rail on said lower wall opposite said side not having a rail thereon, end walls hingedly secured to the other of said rails, said end walls having the upper edges thereof tapered outwardly from the sides thereof disposed toward said posts, an upper wall having cleats thereon providing grooves into which the upper edges of said end walls and said other wall may be extended to hold said end walls and said other wall in an upright position, and side members hingedly connected to said roof structure disposed to extend over said upper wall and the remaining portions between said end members to provide a roof for said compartment structures.

In testimony whereof I affix my signature.

FRANK R. GABLE.