Nov. 26, 1929. R. KOENIG 1,737,050

TOY ELECTRIC RANGE

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Fig. 1.

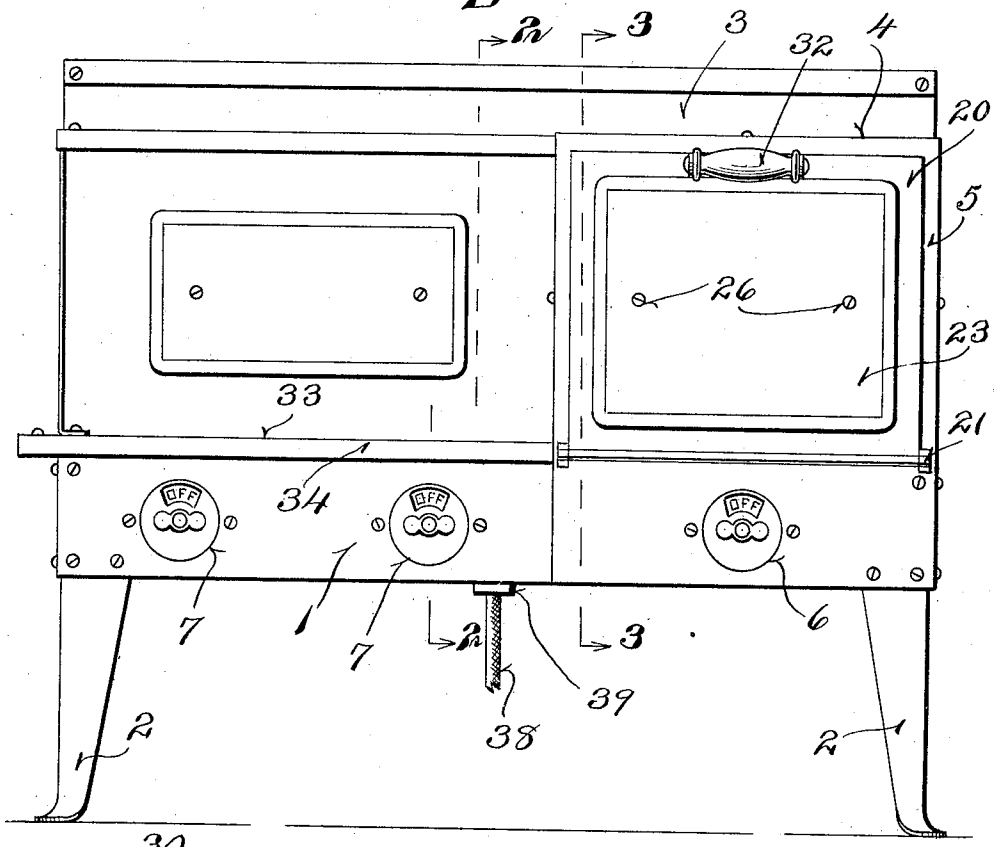
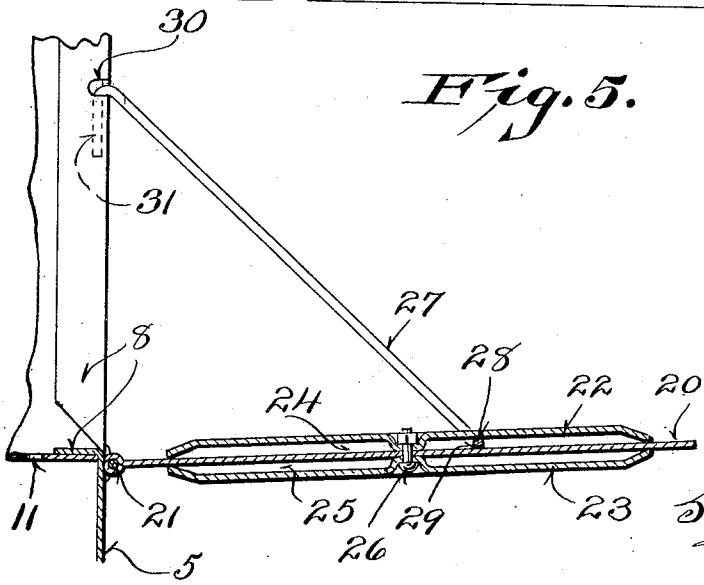


Fig. 5.



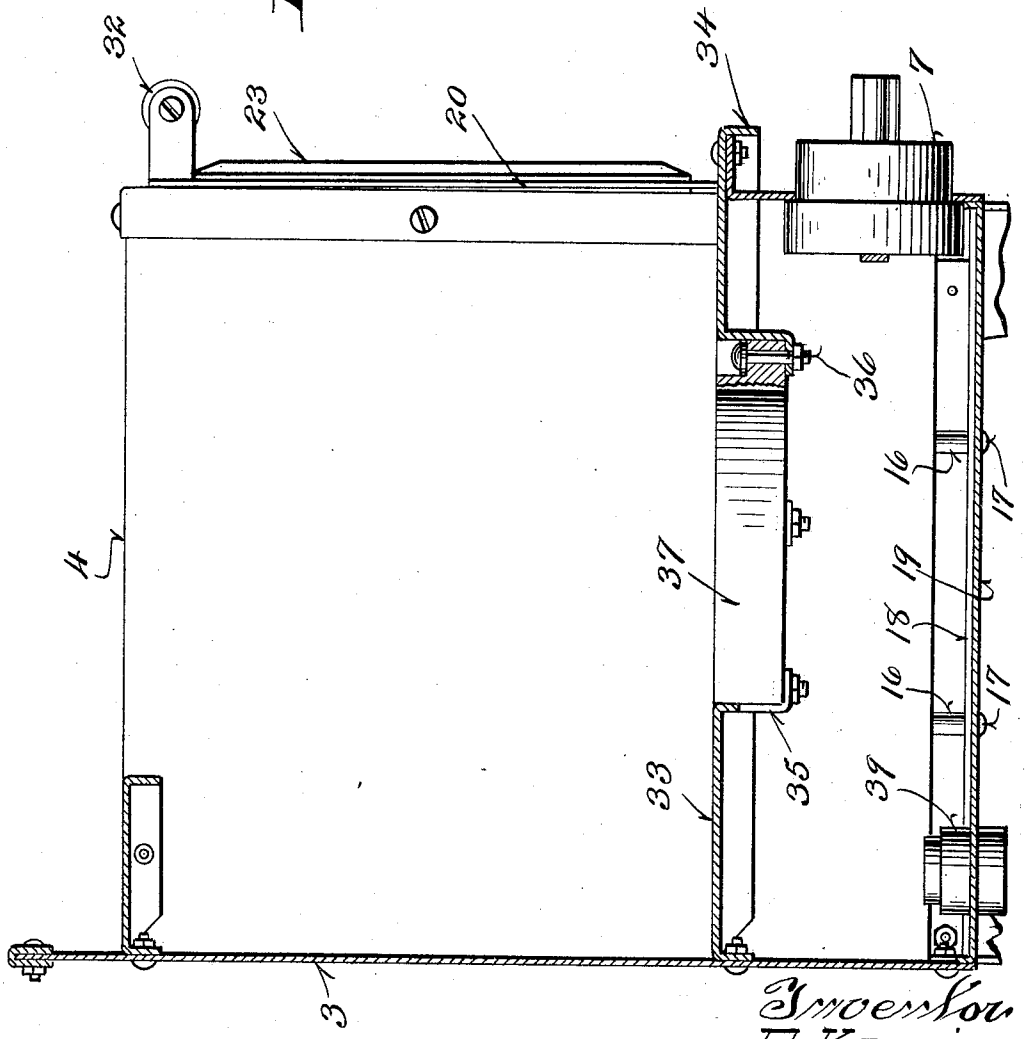
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Fig. 2.



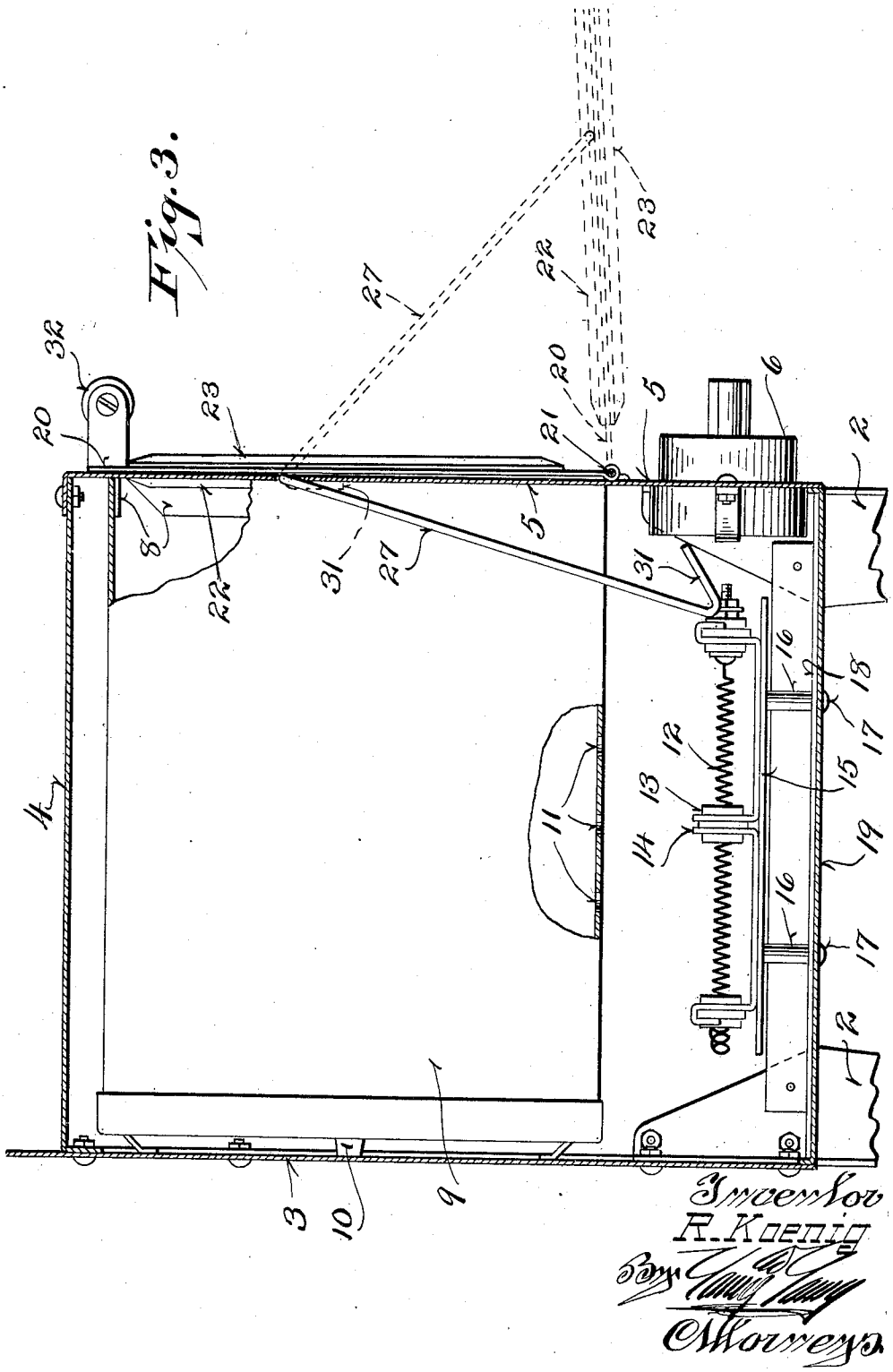
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Nov. 26, 1929. R. KOENIG 1,737,050

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Fig. 3.



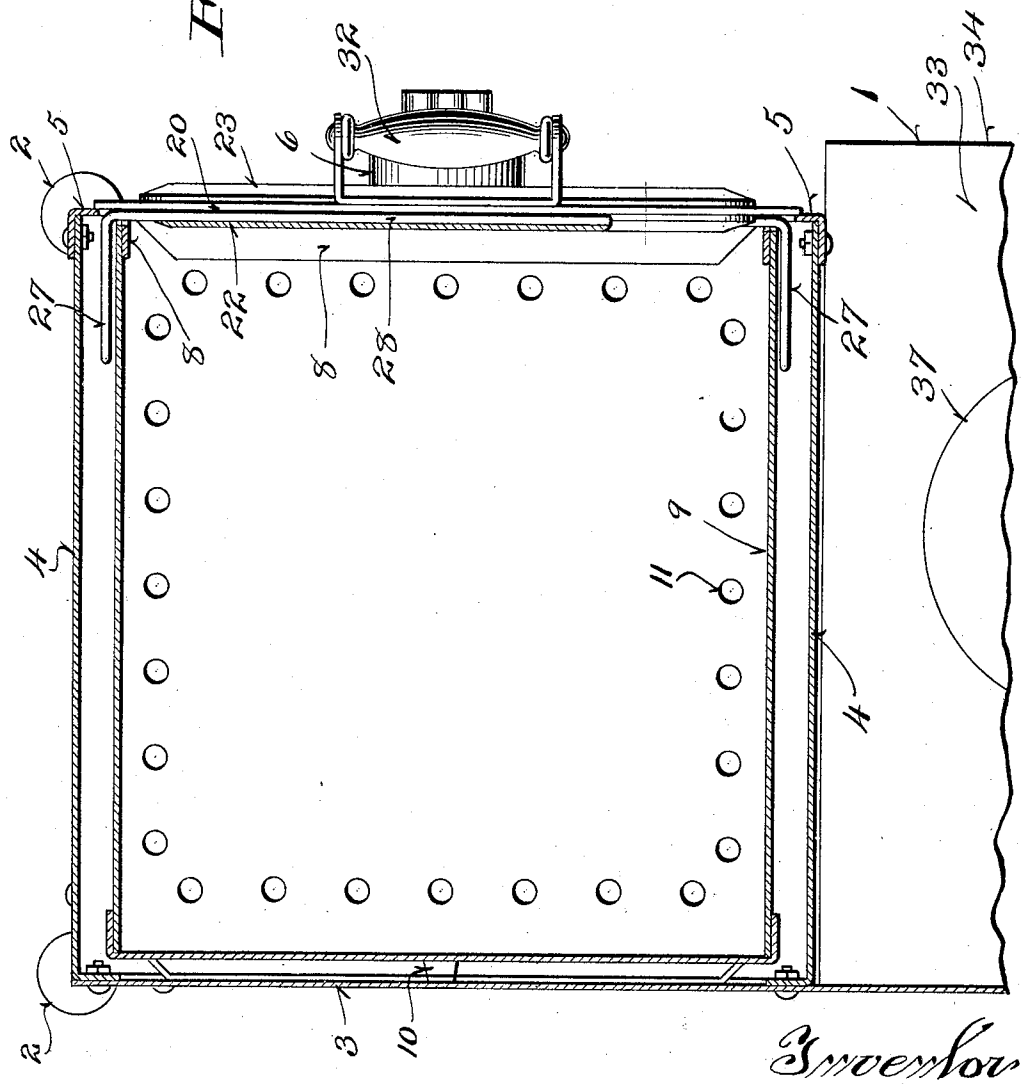
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Fig. 4.



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UNITED STATES PATENT OFFICE

REMUS KOENIG, OF TWO RIVERS, WISCONSIN, ASSIGNOR TO METAL WARE CORPORATION, OF TWO RIVERS, WISCONSIN

TOY ELECTRIC RANGE

Application filed October 22, 1927. Serial No. 228,000.

This invention relates to toy electric ranges.

Objects of this invention are to provide a novel form of toy electric range which is constructed in a rugged and substantial manner and which is so made that it can be actually used for cooking articles either on hot plates or else in an oven.

Further objects are to provide a novel form of toy electric range which is formed throughout of sheet metal, which is readily assembled, and which presents a very pleasing and attractive appearance.

A further object of this invention is to provide a novel form of door latch which not only acts as a latch to hold the door in position, but also acts as a suspension member to hold the door approximately horizontally when it is opened, and to so construct these supporting members for the door that they will automatically latch the door in place and will move into door open position upon sufficient pressure being applied to the door.

An embodiment of the invention is shown in the accompanying drawings in which:—

Figure 1 is a front elevation of the range;

Figure 2 is a sectional view on the line 2—2 of Figure 1;

Figure 3 is a sectional view on the line 3—3 of Figure 1;

Figure 4 is a plan view of the oven portion of the device with the top cut off and with parts in section;

Figure 5 is a sectional detail of a portion of the door and the associated casing.

Referring to the drawings, it will be seen that the device comprises a main supporting frame 1 to which a plurality of legs 2 are attached. This frame continues across the back of the range to provide a continuous back 3. The oven is a box-like structure formed of an outer casing 4 (see Figures 1 and 4) which is provided with a front plate 5. The front plate 5 continues downwardly and ends in alignment with the front frame 1. The portion 1 and the lower portion of 5 are used to carry the switches 6 and 7. It is to be noted that a pair of switches are provided in the range structure. The front plate 5 of the oven, as shown most clearly in Figure 4, is provided with a pluralitv of inturned flanges 8. These flanges are adapted to receive the inner shell or inner oven casing 9. This casing is merely slipped over the flanges and is held in its forward position in contact with the front plate 5 by means of the tongues 10 struck rearwardly from the rear wall of the inner casing or shell 9. These flanges contact with the rear wall 3 of the range. This structure is most clearly shown in Figure 4. It is to be noted that the oven or inner casing is provided with a plurality of apertures 11 through its bottom, whereby the heated air from the heating element 12 may enter. This heating element may be of any suitable and conventional material and is threaded through a plurality of porcelain eyelets 13 carried by the ends of the U-shaped members 14. The members 14 are supported by a plate 15 (see Figure 3) which extends across the oven adjacent its bottom and is spaced therefrom by means of the spacing pillows or sleeves 16. Screws 17 extend through these spacing pillows and secure the plate 15 and the U-shaped members 14 in place.

It is preferable to provide a sheet of heat insulating material such as asbestos, as indicated by the reference character 18 and to position this sheet of asbestos above the lower plate 19 of the range.

By the construction illustrated, it is apparent that the heat is prevented from passing freely downwardly and excessively heating the bottom plate 19 of the range. Consequently, there can be no scorching of a floor upon which the device is placed. Instead most of the heat passes upwardly and is active in heating the inner shell of the oven.

The oven door comprises a central plate 20 (see Figure 5) which is pivotally joined, as indicated at 21, adjacent its lower end to the lower portion of the front plate 5 of the oven. A pair of spaced plates forming inner and outer plates 22 and 23 are positioned on opposite sides of the central plate 20 of the door. These inner and outer plates are provided with flanges, as indicated by the reference characters 24 and 25. A central bolt 26 passes through the structure and holds the three plates in their related positions, as indicated.

The door is supported by means of a U-shaped supporting and latching member which is provided with a pair of arms 27 (see Figures 3, 4, and 5) and which is also provided with a transverse integral connecting member or portion 28. The portion 28 passes through slots or notches 29 formed in the flange 24 of the inner plate of the door. The members 27 when the door is open extend upwardly and rearwardly and pass into notches 30 formed in the front plate 5 of the door, as shown most clearly in Figures 4 and 5. These members 27 are provided with downturned inner ends 31 (see Figures 3 and 5) which engage the inner face of the front plate 5 of the oven when the door is opened out. Thus, the door is very rigidly and securely held by the construction illustrated. Further, when it is desired to close the door it is merely necessary to raise it by means of the handle 32 (see Figure 4), the members 27 sliding upwardly and rearwardly through the notches 30 and into the space between the outer walls 4 of the oven and the inner walls 9 thereof, as shown in Figure 4. These members 27 swing downwardly and it will be noted particularly from Figure 3 that when the door is completely closed these members hold the door inwardly against the front plate 5 of the oven. The reason for this action is apparent from an examination of Figure 3. It will be seen that the upper ends of these arms 27 engage the inner side of the front plate 5 of the oven and, consequently, the weight of the arms tends to make them swing downwardly into the position shown in Figure 3. This naturally exerts considerable leverage upon the door and draws the door inwardly tightly against the front plate 5. It is apparent also that in opening the door, the user need only pull the handle 32 with a little greater effort than usual to cause the links 27 to swing upwardly and thereafter slide through the notches 30 into the position shown in Figure 5.

It will be seen that a novel, simple, and automatic door supporting and latching means is provided by this construction and one which may be very cheaply and simply made. Further, no spring snap nor other latching means is required and consequently the uncertain latching of the oven door is wholly avoided.

The electric range is provided with a top plate 33 (see Figures 1 and 2) which extend outwardly from the oven and which is provided with a downturned front flange 34 to give it a finished appearance. This plate 33 of the range is provided with cutout portions which are further equipped with downwardly struck lugs 35 (see Figure 2). These lugs are inturned at their lower ends and receive the bolts 36 by means of which the heating units 37 are held in place, the heating units 37 being controlled by the switches 7, and the heating unit for the oven being controlled by the switch 6. The supply cable for all of the heating units is indicated by the reference character 38 (see Figure 1) and enters through the bottom plate 19 of the range by way of the porcelain sleeve 39 in a well known manner.

It will be seen that a very substantial and practical form of toy electric range has been provided by this invention which may be very simply made, which is easily assembled, and which is of rugged and substantial construction.

It will be seen further that the electric range may be used for actually cooking articles either upon the hot plates or in the oven.

Although the invention has been described in considerable detail, such description is intended as illustrative rather than limiting as the invention may be variously embodied and as the scope of such invention is to be determined as claimed.

I claim:

1. A toy electric range having a box-like oven structure, an inner shell carried within this box-like structure and provided with separate walls for its top, bottom, sides and back, said oven having a front plate provided with an aperture, a door closing said aperture, said front plate having inturned flanges upon which the shell is carried, said shell having outwardly struck fingers at its rear end engaging the rear outer wall of the oven, a bottom plate spaced downwardly from said shell, a shielding plate positioned between said shell and said bottom plate and electric element, and a support for holding said heating element spaced upwardly from said shielding plate and located below the bottom of said inner shell.

2. A toy electric range having a box-like oven structure, an inner shell carried within this box-like structure and provided with separate walls for its top, bottom, sides and back, said oven having a front plate provided with an aperture, a door closing said aperture, said front plate having inturned flanges upon which the shell is carried, said shell having outwardly struck fingers at its rear end engaging the rear outer wall of the oven, a bottom plate spaced downwardly from said shell, a shielding plate positioned between said shell and said bottom plate, a U-shaped supporting member, and a heating element carried by said U-shaped supporting member, the bottom of the inner shell having a plurality of apertures for the passage therethrough of the heated air rising from the heating element.

3. A toy electric range comprising an oven having an outer casing, an inner shell mounted in spaced relation thereto and providing side spaces between the sides of the inner shell and the outer casing, a front plate having an entrance aperture giving access to said inner shell, a door pivotally mounted adjacent

its lower end and adapted to close the aperture through said front plate, said front plate having a pair of holes on opposite sides of said aperture communicating with the spaces between the sides of the inner shell and the outer casing, a U-shaped member having its yoke pivotally carried by said door and having its arms passing through said holes and provided with downturned hook-like ends adapted to engage the inner side of the front plate when said door is opened out, the holes in the front plate and the door being so related that when the door is closed, the arms of the U-shaped member rock downwardly and draw the door into tightly closed position, the weight of said arms urging them downwardly and maintaning a yielding closing force while the door is in closed position.

In testimony that I claim the foregoing I have hereunto set my hand at Two Rivers, in the county of Manitowoc and State of Wisconsin.

REMUS KOENIG.