Dec. 20, 1932. K. OPPENLÄNDER 1,891,393

COLLAPSIBLE DINNER OR TEA WAGON

Filed April 11, 1931

Fig.1.

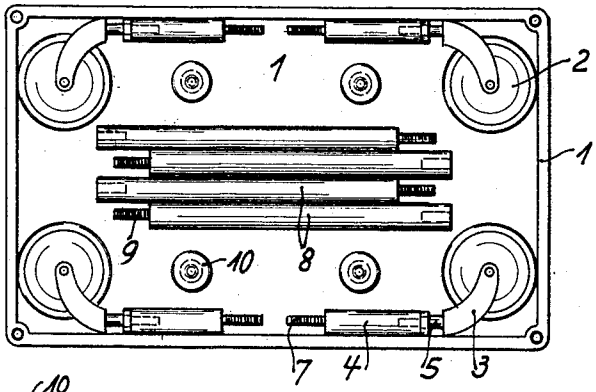


Fig.2.

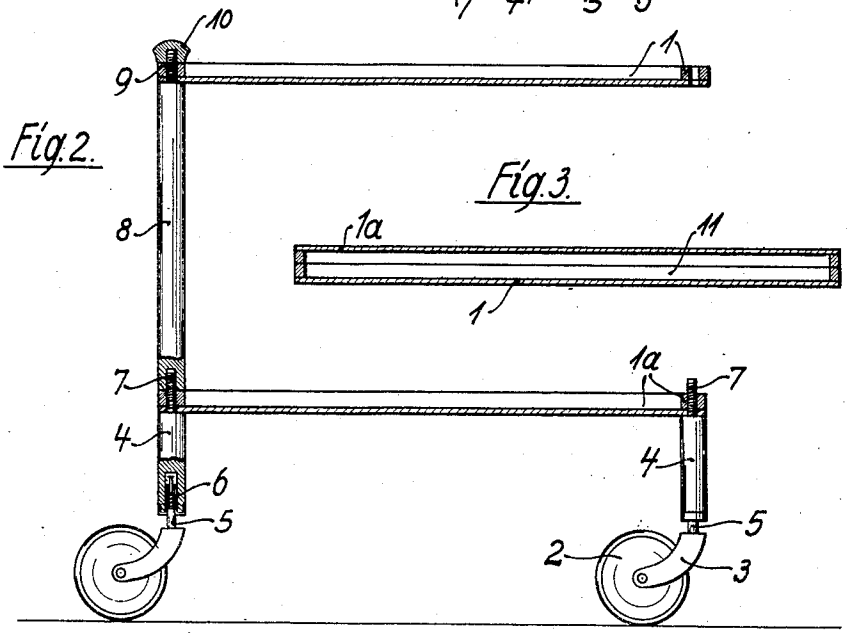


Fig.3.

Fig.4.

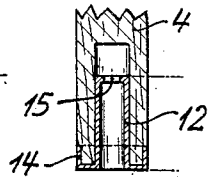
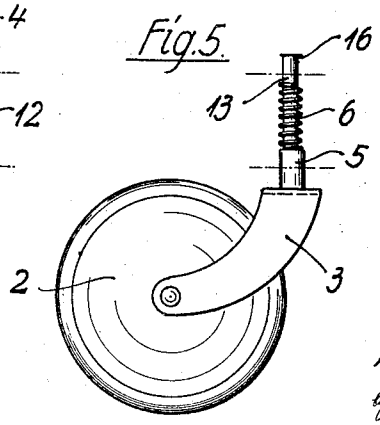


Fig.5.



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UNITED STATES PATENT OFFICE

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COLLAPSIBLE DINNER OR TEA WAGON

Application filed April 11, 1931, Serial No. 529,440, and in Germany February 7, 1931.

This invention relates to a serving wagon, collapsible for the purpose of saving space and having a shelf arranged vertically underneath the table plate. The serving wagons of this type hitherto known consist of a collapsible frame, to which the table plates are removably connected. The three parts produced by the dismantling always require a relatively large amount of space and are difficult to pack.

According to the invention the table plate and the shelf plate are held at a certain distance apart by corner posts or uprights, the upper ends of which pass through the upper table plate and are provided with screw threaded pins for accommodating fixing nuts or knobs and their lower ends have screw threaded bores, through which screw threaded pins extending through the bottom shelf plate and provided with feet having rollers are screwed. This manner of fitting together, which is not visible from the outer side, enables the wagons to be easily taken to pieces and fitted together. The main advantage however consists in that all the parts of the frame, namely the feet, the uprights and the knobs, can be easily accommodated in the space formed by the inverted shelf plate and the table plate, which is identical to the shelf plate. The serving wagon thus dismantled can be easily packed in shallow packing boxes and transported. This fact is particularly advantageous for shipping, as in a case, which hitherto could only accommodate one wagon, a number of the serving wagons according to the invention can be packed so that a great saving in freightage, which is calculated according to space, is attained. The same applies to the better utilization of the storage rooms in stores, shops and the like.

An embodiment of the invention is illustrated by way of example in the accompanying drawing in which:

Fig. 1 shows the wagon in dismantled position.

Fig. 2 is a part longitudinal section of a wagon fitted together.

Fig. 3 is a longitudinal section of the inverted, united table tops in position for dispatch.

Fig. 4 shows in longitudinal section a spring sleeve for a steering roller.

Fig. 5 shows a steering roller in side elevation.

The tea wagon, illustrated in dismantled condition in Fig. 1, consists of a table plate 1, and of four steering wheel forks 3, elastically connected by pins 5 to feet 4 and carrying each a steering roller 2. Each pin 5 has an extension 13, around which a spiral spring 6 is wound. The feet 4 are each provided at the upper end with a screw thread 7, in order to enable them to be inserted at this point in four uprights 8. These latter have a screw pin extension 9 at their upper end, which, after being inserted through the table plate 1, to which a similar table plate 1*a* extends parallel, are fixed by means of decorated wooden knobs 10 or the like. In the dismantled position according to Fig. 1 it is therefore only necessary to screw the upper table plate 1 on to the inverted lower table plate 1*a*, in order to make the tea wagon as compact as possible. The table plates 1 and 1*a* containing the individual parts arranged as shown in Fig. 1, can then be packed in a cardboard box. If it is desired to fit together the tea wagon ready for use, the table plate 1*a* is removed from the table plate 1, exposing the parts shown in Fig. 1, after which the plate 1*a* is slipped on to the four feet 4. The uprights 8 are then screwed on to the pins 7 of the feet 4 and the top plate placed on the pins 9 at the upper ends of the uprights 8. The whole is then securely connected by screwing on the four knobs 10. Consequently the wagon is ready for use in a few minutes and in a similar manner it can be put to pieces for dispatch in the same time. Whereas it was hitherto possible to only accommodate one wagon in an ordinary oversea case, it is possible with the new construction to accommodate 10 to 12 wagons of the same size. If the upper plate 1 is fixed upside down turned an angle of 180°, so that the hollow space is directed downwards, the wagon can be used as a transportable table and the upper plate may also be used as serving tray, after the knobs 10 have been removed.

The roller bearing is shown in detail on an enlarged scale in Figs. 4 and 5. The upper part 13 of the pin 5, guided in the sleeve 12 is of smaller diameter and surrounded by the axially acting spiral spring 6. The sleeve 12 serves as guide for the spring 6 and effects the shock absorbing. It is so shaped that it can act in its part 14 as carrying plate for the shank, fitted on the table foot 4. The narrowed sleeve neck 15 is guided on the pin 13, whereas the sleeve 12 is guided on the thicker pin part 5. The bottom of the neck 15 serves as counter bearing for the spring 6. Both the sleeve and also the spring are secured by a set off portion 16 against slipping out upwardly. By this form of construction the advantage is obtained that, when travelling over irregularities on the ground, sills or the like, the shock is completely absorbed by the spring bearing.

I claim:

A collapsible serving wagon, comprising in combination a table plate having a hole at each corner, a shelf plate of the same shape as said table plate, also having a hole at each corner, uprights each having an axial screw-threaded bore at its lower end, one of said uprights between each of the corners of said plates adapted to hold said plates at a uniform distance apart, screw pins, one on the end of each upright adapted to be inserted through one of the holes in said table plate, a screw knob adapted to be screwed on each of said screw pins to hold said table plate on said uprights, and feet each having a screw pin adapted to be inserted through one of the holes in said shelf plate and to engage in the screw threaded bores of said uprights to hold said shelf plate rigidly on said uprights, said plates adapted to form a box for accommodating all of the above mentioned parts, when the wagon is dismantled for storage or transport.

In testimony whereof I affix my signature.

KARL OPPENLÄNDER.