

May 20, 1952

D. S. WHITEMAN
MOVABLE GANGPLANK

2,597,213

Filed June 10, 1949

2 SHEETS--SHEET 1

FIG. 1.

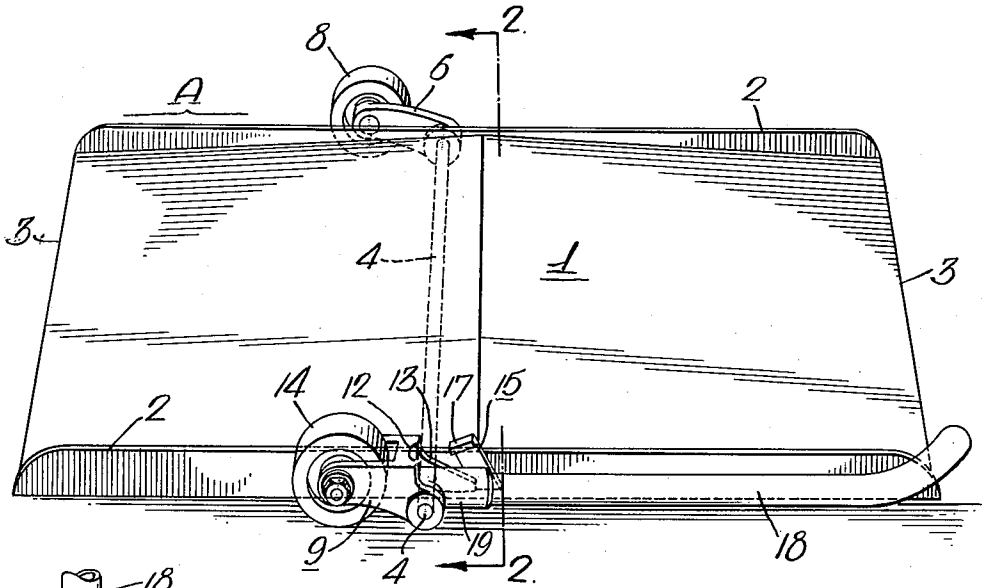


FIG. 2.

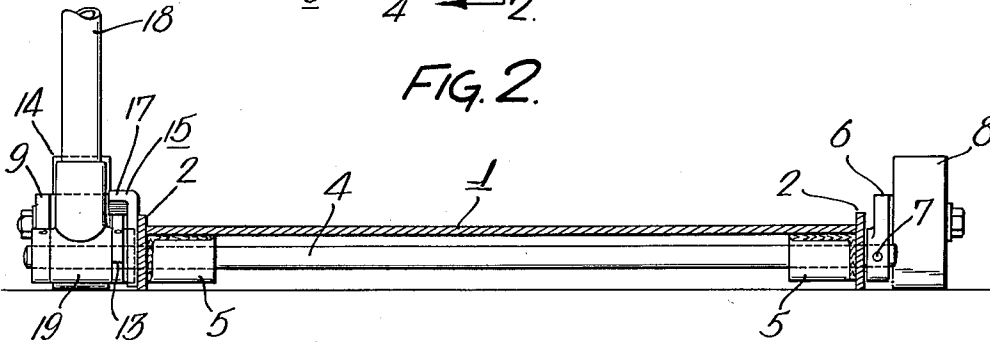
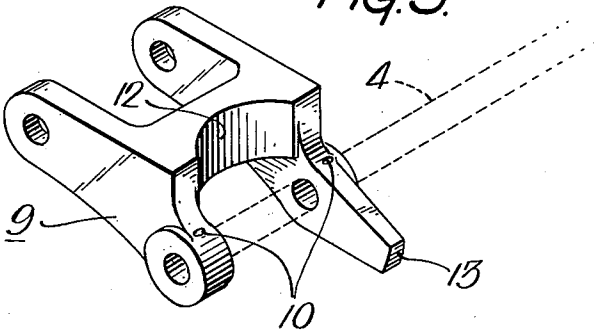


FIG. 3.



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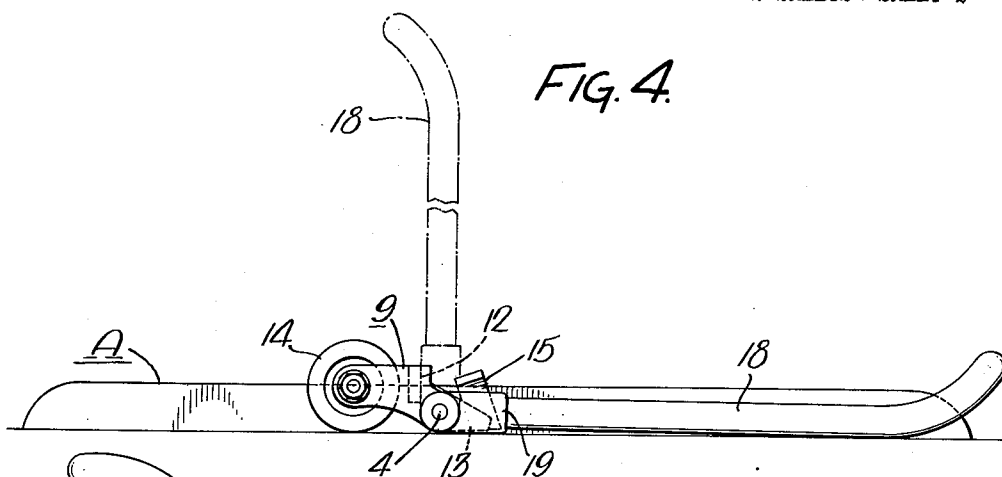
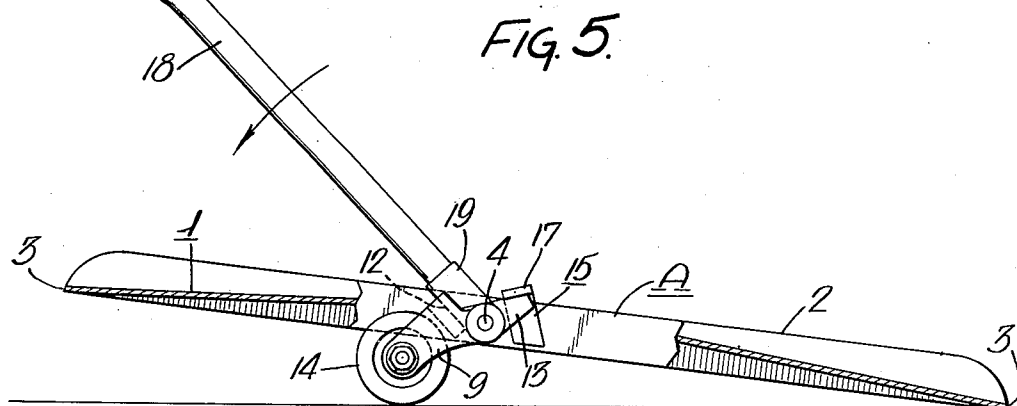
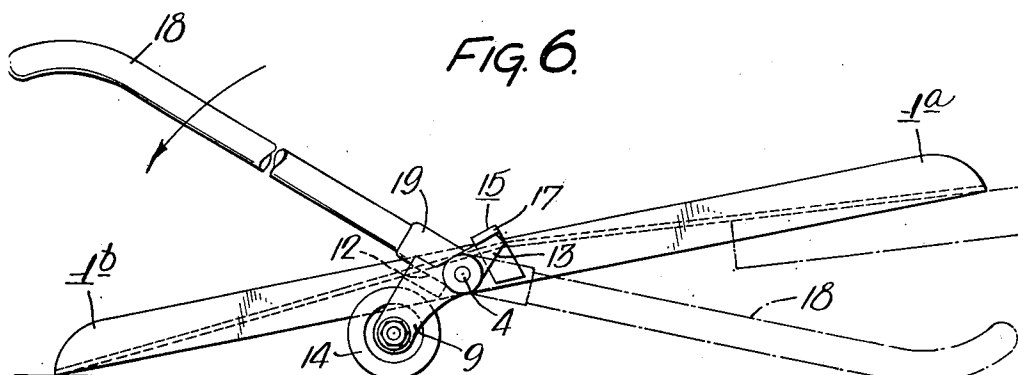
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2 SHEETS—SHEET 2



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UNITED STATES PATENT OFFICE

2,597,213

MOVABLE GANGPLANK

Daniel S. Whiteman, Wyncote, Pa.

Application June 10, 1949, Serial No. 98,337

2 Claims. (Cl. 14-72)

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This invention relates to an improved gangplank as adapted for use in the loading or unloading of trucks or other vehicles at depots or factories.

The platforms of the prior art are cumbersome and not readily movable to facilitate loading and unloading. They do not lend themselves readily to quick maneuverability when such is required at a loading or unloading station and they tend to slow up the work as well as cause an unnecessary burden on the operator due to their weight.

The principal object of the present invention is to provide a gangplank for loading or unloading of articles which will be of relatively heavy construction and adapted to heavy use, yet at the same time be readily maneuverable into and out of position as the particular occasion demands.

A second object of this invention is to provide a loading platform of relatively simple construction, easily made and readily operated, which is adaptable especially to small businesses.

A still further object of the present invention is to provide a gangplank, which when employed, will not interfere with the loading or unloading of large articles due to the fact that the handle member thereof is adapted to rest free of the platform when not in use.

Another object of this invention is to provide a means wherein the gangplank may be readily guided into and out of position without the necessity of employing several operators for that purpose.

Further objects will appear from the specification and drawings in which:

Figure 1 is a perspective of the gangplank constructed in accordance with the invention;

Figure 2 is a transverse section along line 2-2 of Figure 1, but with the operating handle in a moved position;

Figure 3 is a perspective of the wheel fork, an element of the invention; and

Figures 4 to 6 are side elevational views of the invention showing the handle in a succession of steps in connection with the operation of the gangplank.

This invention comprises essentially a gangplank assembly A comprising a floor member 1 with edges 2, 2 on its respective sides and open at its two ends 3, 3. Beneath the floor member 1 and set off-center therefrom is a transverse shaft 4 secured to the undersurface of the floor 1 by means of sleeve bearings 5, 5, said bearings being secured to the underside of the platform as by welding or the like. On one end of said trans-

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verse shaft 4, an arm 6 is securely mounted as by a pin 7, said arm being adapted to carry a roller 8 rotatably mounted thereon. On the other end of said shaft 4 is a wheel fork 9 rigidly secured to said shaft 4 by means of pins inserted as at 10, 10. Said wheel fork 9 comprises a bracket 11, a socket 12 and a forwardly protruding arm 13. A roller member 14 is rotatably mounted within said bracket 11 of the wheel fork 9.

A stop member 15 is secured to one edge 2 of the floor 1, said stop member 15 comprising a strip 16 and an outwardly extending flange 17. This stop member limits the pivotal motion of the wheel fork 9 by abutting the arm 13, which prevents further turning of the bracket 11.

A handle member 18 is secured in a sleeve 19, said sleeve 19 being rotatably mounted upon one end of said transverse shaft 4 and adapted to cooperate with the socket 12 of the wheel fork 9 when in use.

In operation, when it is desired to use the invention in question, the operator grasps the handle 18, which is lying in its prone position as shown in Figure 1, and pulls on it in a counter-clockwise motion as shown in Figures 4 to 6. Such motion continues until the handle 18 is in a substantially upright position as shown in broken lines in Figure 4. At this point, the sleeve 19 of the handle 18 seats itself in the socket 12 of the wheel fork 9 as shown in broken lines in Figure 4.

Further turning of the handle 18 serves to pivot the wheel fork 9 and the securely mounted arm 6 on the shaft 4, thereby forcing the roller members 7 and 14 to raise the rear portion of the floor 1 as shown in Figure 5.

This counter-clockwise motion is continued until the arm 13 of the wheel fork 9 abuts the flange 17 of the limit stop 15. Continued counter-clockwise rotation of the handle 18 forces the raising of the forward part 1a of the platform about the centers of rollers 8 and 14 and the lowering of the rear part 1b of the platform, all as shown in Figure 6.

With the gangplank in this position balanced upon the shaft 4 and the rollers 8 and 14, said gangplank is readily maneuverable about the floor by a single operator into any desired position for any use required, thereby insuring a heavy-duty platform without the need of employing several men for its operation.

After the gangplank has been placed in position on the back of a truck or other vehicle for loading or unloading purposes, the handle 18

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may be moved clockwise and placed out of position resting on the floor, so that large objects may be rolled across the gangplank without interference.

When it is desired to remove the gangplank from its operative position, the handle 18 may be raised and moved counter-clockwise to that point where handle 18 will force the flange 17 of the limit stop 15 to pull the forward part of the gangplank upwardly and free from the rear of the truck so that said gangplank may be moved out of position and wheeled out of use, and the handle 18 then again placed in a prone position ready for further use when needed.

Having thus described my invention, I claim:

1. A gangplank assembly having a floor, a transverse shaft journaled on the under surface of said floor in spaced relationship from the center of gravity thereof, a roller bracket rigidly mounted on each end of the shaft, an arm projecting from one of said brackets, a roller in each of said brackets, a stop secured to the side of said floor and engageable by said arm to limit rotation of said shaft and bracket, and a lever rotatable on said shaft and engageable with an abutment on said bracket to rotate said shaft and bracket into operative position.

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2. A gangplank assembly having a floor, a transverse shaft journaled on the under surface of the floor in spaced relationship from the center of gravity thereof, a roller bracket rigidly mounted on each end of the shaft one of said brackets having a bifurcated support on the shaft, an arm projecting from one of said brackets, a roller in each of said brackets, a stop secured to the side of said floor and engageable by said arm to limit rotation of said shaft and bracket, and a lever rotatable on said shaft between the bifurcations of said bracket and engageable with an abutment on said bracket to rotate said shaft and bracket into operative position.

DANIEL S. WHITEMAN.

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