Feb. 18, 1947. E. W. COFFEY 2,415,809

ROLL STAND

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Fig. 1.

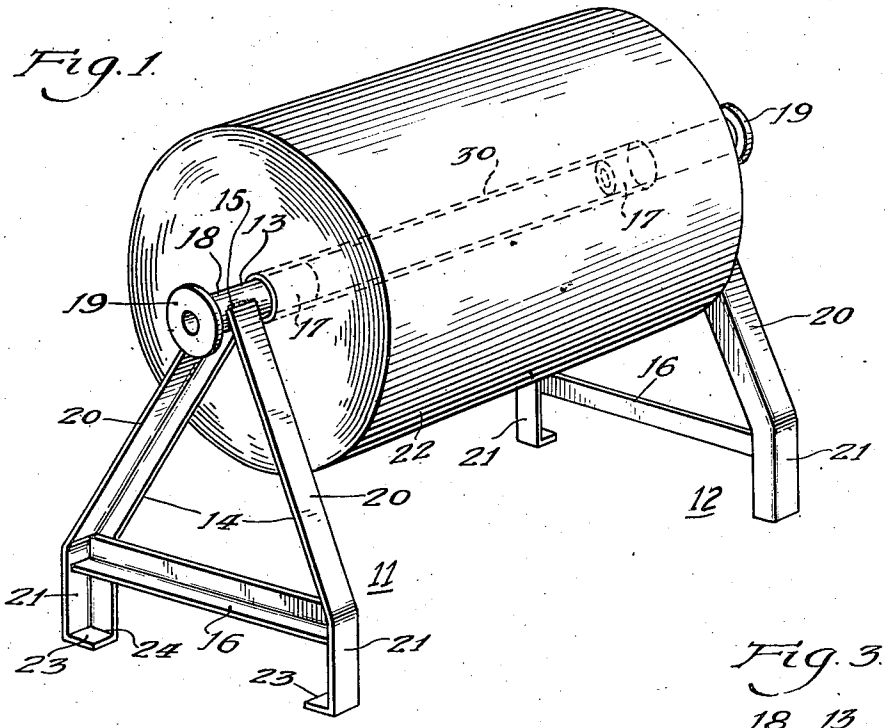


Fig. 2.

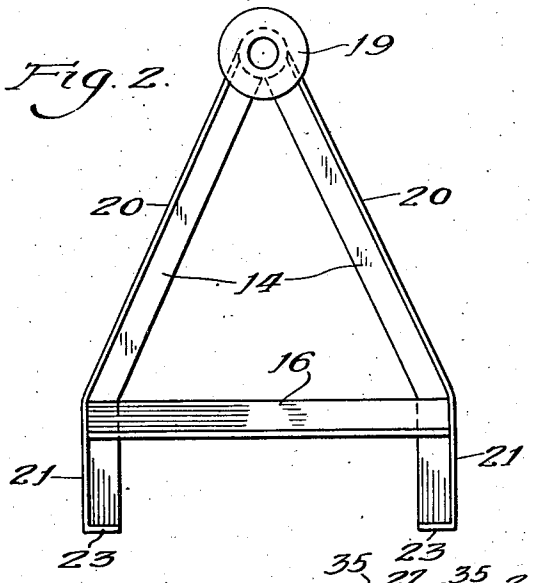


Fig. 3.

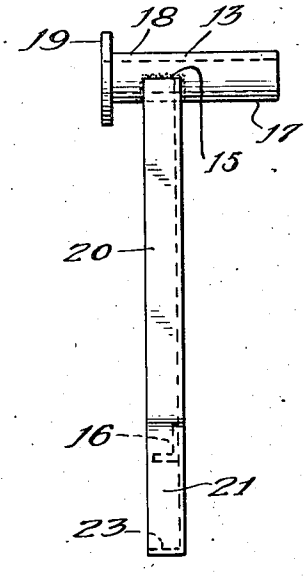
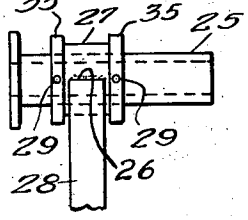


Fig. 4.



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ROLL STAND

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5 Claims. (Cl. 242—55.2)

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This invention relates to roll stands and has for an object the provision of a pair of roll supporting members provided with stud shafts for engagement in opposite ends of centrally disposed core openings of rolls of strip material, such as paper, linoleum, and the like. In the storage of large rolls of strip material such as paper or linoleum, it is desirable that same be supported in spaced relation to the floor to prevent the formation of flat surfaces thereon.

It is a further object of this invention to provide the pair of roll supporting members with hoist hook engaging means whereby a roll of strip material may be readily lifted and then supported above the floor upon said members.

It is a further object of this invention to provide a roll stand adapted to facilitate the movement of large, heavy rolls of strip material.

It is a further object of this invention to provide each roll supporting member with a cross member disposed below the periphery of a mounted roll for engagement by a forked lift truck in moving the rolls. The roll supporting members are adapted to hold a roll of strip material at a sufficient distance from the floor to permit the fork of a lift truck to be inserted transversely under the roll for moving same to a new position, and with the supporting members depending from the ends of the roll and in position to support same upon lowering of the lift truck fork.

This invention embodies other novel features, details of construction and arrangement of parts which are hereinafter set forth in the specification and claims, and illustrated in the accompanying drawing wherein:

Fig. 1 is a perspective view showing a roll of strip material mounted upon a roll stand embodying features of this invention.

Fig. 2 is an end elevational view showing one of the roll supporting members.

Fig. 3 is a side elevational view of same.

Fig. 4 is a side elevational view showing a modified form of a roll supporting member in which a stud shaft is journaled for rotation thereon.

Referring now to the drawing for a better understanding of this invention, the roll stand is shown as comprising a pair of similar roll supporting members 11 and 12. Each roll supporting member comprises a stud shaft 13 secured to and supported by a pair of legs 14 which are connected adjacent their lower ends by a cross member 16. The stud shaft is preferably formed of tubular material and welded intermediate its

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ends to the legs 14 at 15 to provide a roll supporting portion 17 and a hoist hook engaging portion 18. An annular hoist hook retaining plate 19 is welded to the outer end of the stud shaft 13 to serve as an abutment shoulder to prevent outward displacement of a hoist hook from the portion 18. The legs 14 are preferably formed of angle-iron and disposed to diverge outwardly at 20 from their welded engagement at 15 with the stud shaft and then bent into parallel relation at 21 for welded engagement with the ends of the cross member 16 which is also preferably formed of angle-iron.

In designing the roll supporting members 11 and 12 the length of the legs 14 is determined by the diameter of the roll of strip material 22 to be supported. The leg portions 21 are preferably spaced at a sufficient distance from each other to receive the fork of a lift truck therebetween, and each cross member 16 must be disposed upwardly at a sufficient distance from the lower ends of the legs 14 to permit the fork of a lift truck to be inserted thereunder for lifting engagement therewith without striking against the end of the roll 22. If desired, the legs 14 may be provided with foot portions 23 formed by bending one side of the angle-iron upwardly at right angles and welding same at 24 to the other side of the angle-iron, thereby providing foot portions of sufficient area to support the weight of relatively heavy rolls without injury to a floor.

Referring now to Fig. 4 in the drawing, a modified form of roll supporting members is shown as comprising a stud shaft 25 journaled for rotational movement in a bearing 27 welded at 26 to the upper ends of a pair of legs 28. The stud shaft is held against axial movement with respect to the bearing 27 by means of locking collars 35 which are secured to the stud shaft 25 on opposite sides of the bearing 27 by means of set screws 29. This form of the invention is otherwise similar in construction to the form heretofore described in reference to Figs. 1, 2 and 3 in the drawing.

In the use of a roll stand of the type described and shown in the drawing for positioning a roll in spaced relation to a floor, the roll supporting portions 17 of the stud shafts 13 are inserted in the core opening 30 of the roll 22. The outer portions 18 of the stud shafts 13 are then engaged by hoist hooks (not shown) for raising the roll 22 and the members 11 and 12 upwardly away from the floor. While the roll and roll supporting members are thus suspended on the hoist hooks, the legs 21 are pivoted downwardly to-

wards their roll supporting positions shown in Fig. 1 for supporting the roll upon lowering movement of the hoist hooks. When the roll 22 is supported upon the end members 11 and 12, it may readily be transported to other locations by means of a fork type lift truck by either engaging the fork under the cross members 16 or by engaging the fork under the roll 22 in a direction transversely thereof. When the roll itself is engaged by the fork of a lift truck, the members 11 and 12 may remain in their depending positions, if desired, for use in supporting the roll in its new location. The roll 22 may be removed from the supporting members by engaging the portions 18 with hoist hooks to raise the roll off the floor, and then pivoting the end members upwardly in order that the roll may be brought into direct contact wtih the floor upon lowering of the hoist hooks.

In the form of the invention shown in Fig. 4, the legs 28 are rotatably mounted on the stud shaft 25 in order that they may move by gravity to their roll supporting position during lifting movement of a roll as heretofore described. In the form of the invention shown in Figs. 1 to 3, it is necessary to manually pivot the legs 14 into roll supporting positions due to the frictional resistance between the stud shaft and the hoist hooks and core wall.

While this invention has been shown in but two forms it is obvious to those skilled in the art that it is not so limited, but is susceptible of various changes and modifications without departing from the spirit and scope of the invention as claimed.

I claim as my invention:

1. In a stand for supporting a roll of strip material having a central core opening therein, a pair of stud shafts for insertion into opposite ends of said core opening, a roll supporting base secured to each stud shaft, and hook engaging means provided on each stud shaft for engagement by hoist hooks for lifting the roll to permit pivotal movement of said roll supporting bases into and out of roll supporting position.

2. In a stand for supporting a roll of strip material having a central core opening therein, a pair of stud shafts for insertion into opposite ends of said core opening, a roll supporting base secured to each stud shaft, hook engaging means provided on each stud shaft for engagement by hoist hooks for lifting the roll to permit pivotal movement of said roll supporting bases into and out of roll supporting position, and fork engaging means provided on said roll supporting bases and disposed for engagement by the fork of a lift truck for lifting said bases and a roll supported thereon.

3. In a stand for supporting a roll of strip material having a central core opening therein, a pair of stud shafts for insertion into opposite ends of said core opening, a roll supporting base rotatably mounted on each stud shaft, and hook engaging means provided on each stud shaft for engagement by hoist hooks for lifting the roll to permit free pivotal movement of said roll supporting bases into and out of roll supporting position.

4. In a stand for supporting a roll of strip material having a central core opening therein, a pair of stud shafts for insertion into opposite ends of said core opening, a roll supporting base rotatably mounted on each stud shaft intermediate the ends thereof, and hook engaging means provided on the outer ends of said stud shafts for engagement by hoist hooks for lifting the roll to permit free pivotal movement of said roll supporting bases into and out of roll supporting position.

5. In a stand for supporting a roll of strip material having a central core opening therein, a pair of stud shafts for insertion into opposite ends of said core opening, a pair of roll supporting legs rotatably mounted on and diverging outwardly from each stud shaft, hook engaging means provided on the outer ends of each stud shaft for engagement by hoist hooks for lifting the roll to permit free pivotal movement of said roll supporting legs into and out of roll supporting position, and a cross member provided between each pair of roll supporting legs intermediate the ends thereof for engagement by the fork of a lift truck for lifting a roll.

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