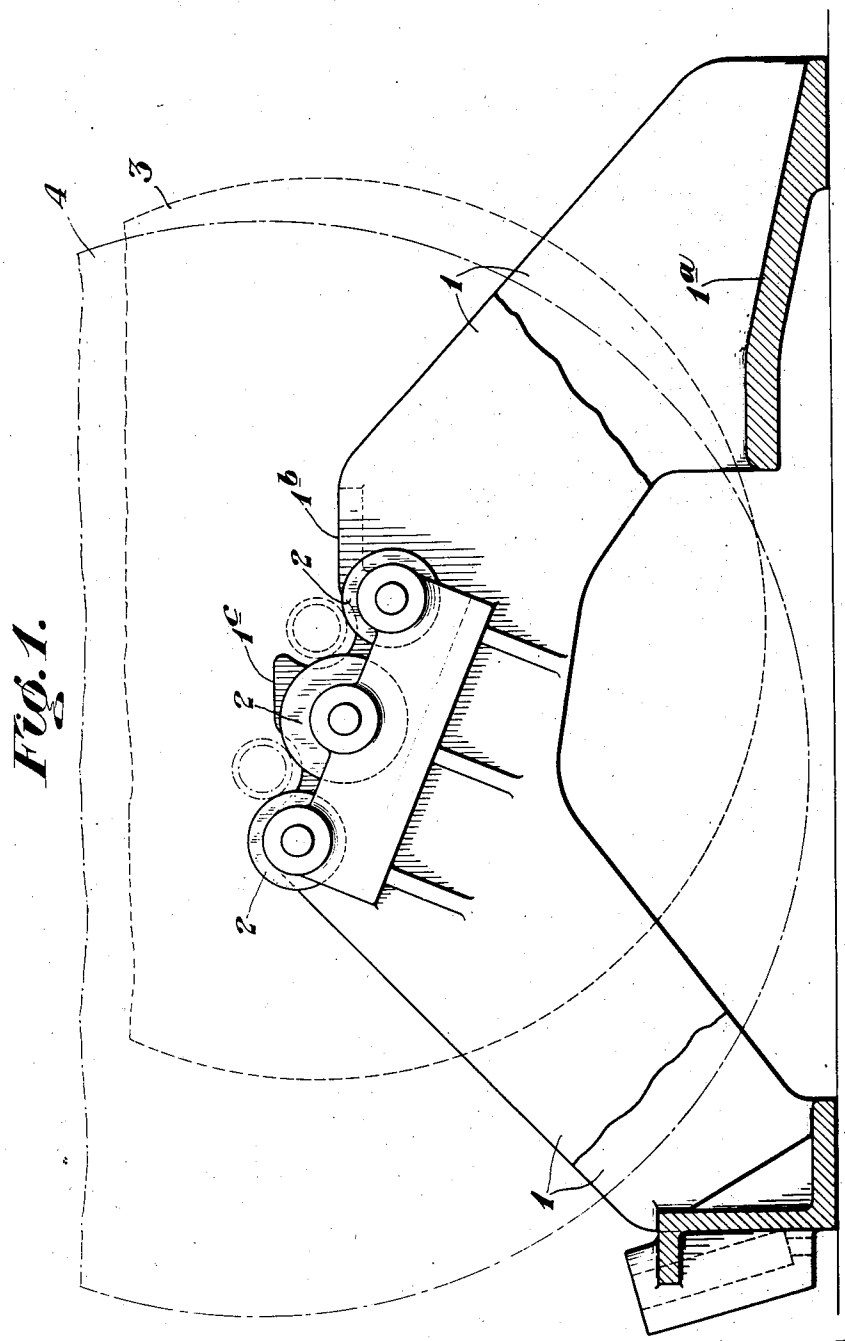
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SPOOL STAND

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Fig. 1.



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Fig. 2.

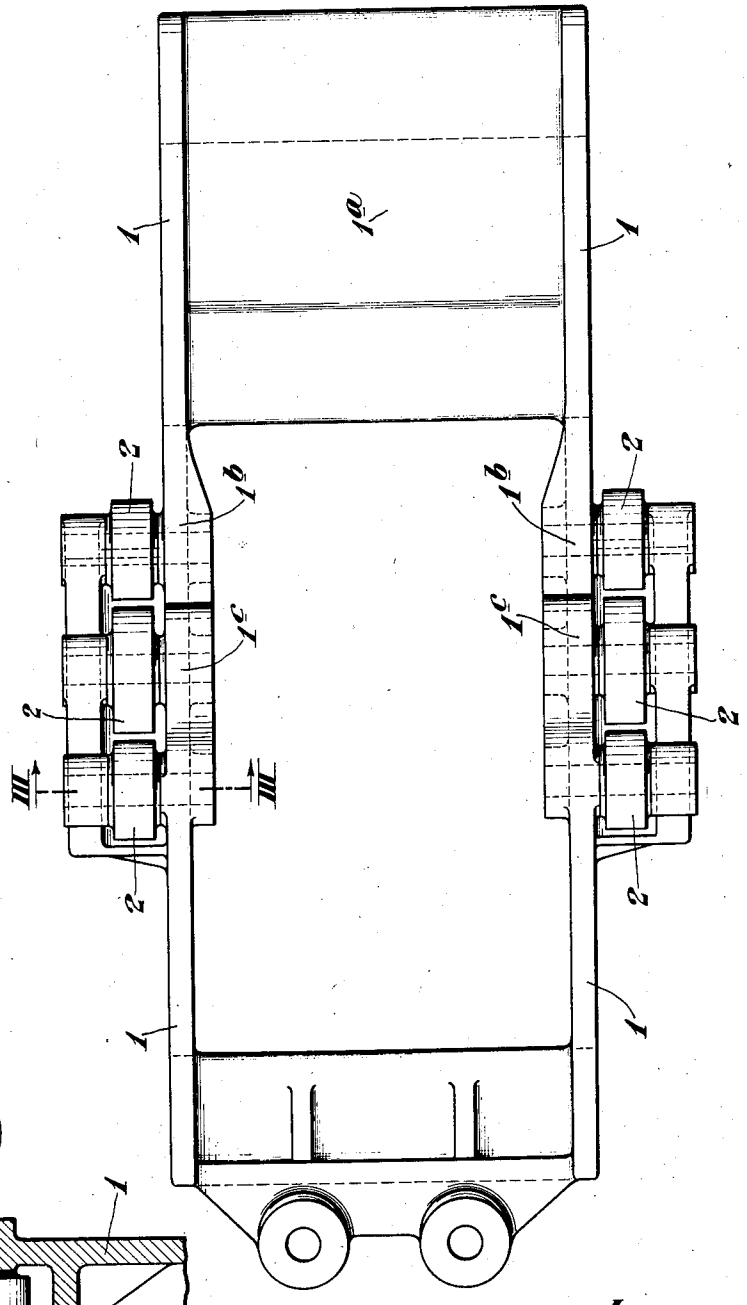
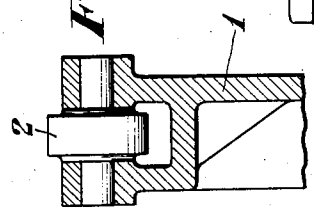


Fig. 3.



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Patented Dec. 18, 1934 1,984,712

UNITED STATES PATENT OFFICE

1,984,712

SPOOL STAND

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Application June 22, 1933, Serial No. 677,141

3 Claims. (Cl. 242—139)

This invention relates to stands for spools such as are used in a wire mill for holding process wire or strip. For instance, when strip is to be annealed and galvanized it is wound on spools from which it feeds while being so processed. The stands are for the purpose of mounting these spools whereby they may rotate with relative freedom.

One of the objects is the provision of a spool stand onto which a heavily laden spool may be easily placed. Another object is to provide a stand which can accommodate spools of different diameters. Another object is to provide a stand whereby the spool may be mounted for freer rotation than is usual. Other objects may be inferred.

The accompanying drawings illustrate a specific example of a stand constructed according to the principles of the present invention, the various figures being as follows:

Figure 1 is a side view.

Figure 2 is a top view.

Figure 3 is a cross section from the line III—III in Figure 2.

Before describing the stand illustrated by the above drawings, it should be understood that the spools are generally provided with axles. Ordinarily these axles are pieces of pipe which are thrust through the bored axes of the spools. This provision of axles is for the purpose of mounting the spools so that they may rotate when the strip or wire is withdrawn.

The illustrated stand includes a mounting consisting of spaced vertical members 1. These members position at least two open-topped journaling means, at different heights. These journaling means are formed by adjacent sets of spaced rollers 2, one set of rollers being carried by each of the members. Each of the rollers in a set is positioned a little higher than the preceding one, and they are all spaced so that a spool's axle may be nested or carried between adjacent ones. Also, the respective rollers in each of the sets are registered with those in the other.

A substantially horizontal runway is formed by flat portions 1^b of the members 1. This runway registers with the lowest of the journaling means, that is to say, with the first two of the rollers in each of the sets. A second substantially horizontal runway is formed by other flat portions 1^c of the members 1. This last runway registers with the second of the journaling means, which are formed by the higher positioned rollers. This second runway extends to a position adjacent the lowest of the journaling means.

The members 1 are interconnected at their bottoms. In one instance this interconnection is by way of an incline 1^a which starts at floor-level and extends to a position where an axle of one of the spools rolled thereover will be received by one or another of the runways formed by either the flat portions 1^b or 1^c.

From the above it will be seen that the new stand includes a mounting positioning at least two open-topped journaling means at different heights, a substantially horizontal runway registering with the lowest of these means, a second substantially horizontal runway registering with the next lowest means and extending to a position adjacent the lowest of same, and an incline starting at floor-level and extending to a position where an axle of one of the spools rolled thereover will be received by one or another of the runways. Also, that the journaling means are formed by spaced sets of adjacent rollers. These rollers are illustrated as being journaled to the mountings 1 through bushings; however, they may be mounted through roller or ball bearings.

The operation of the above is as follows:

A spool, either 3 or 4, having an axle is rolled up the incline 1^a until its axle lands on one or another of the runways. At this point, it seems best to again point out that the spools do not always have the same diameters. Hence, a small spool, such as 3, will land on the lower runway while a larger spool, such as 4, will land on the higher runway. The incline 1^a terminates at a point positioned to effect this. The drawings are believed to amply illustrate this action. When the axle is on the runway, the spool may be easily pushed forwardly, whereupon the axle drops into one or another of the registering open-topped journaling means. The rollers revolve to permit the axle to turn freely.

Although a specific form of the invention is disclosed in accordance with the patent statutes, it is to be understood that it is not to be limited exactly thereto, except as defined by the following claims.

I claim:

1. A stand for spools having axles, including open-topped journaling means positioned above floor-level, a substantially horizontal runway registering with said means, and an incline starting at floor-level and extending to a position bringing an axle of a spool rolled upwardly thereon, onto said runway.

2. A stand for spools having axles, including a

mounting positioning at least two open-topped journaling means at different heights, a substantially horizontal runway registering with the lowest of said means, a substantially horizontal runway registering with the next lowest of said means and extending to a position adjacent the lowest of same, and an incline starting at floor-level and extending to a position where an axle of a spool rolled thereover will be received by one or another of said runways.

3. A stand for spools having axles, including a mounting positioning at least two open-topped journaling means at different heights, a substantially horizontal runway registering with the lowest of said means, a substantially horizontal runway registering with the next lowest of said means and extending to a position adjacent the lowest of same, and an incline starting at floor-level and extending to a position where an axle of a spool rolled thereover will be received by one or another of said runways, said journaling means being formed by spaced sets of adjacent rollers.

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