Oct. 16, 1934. A. J. PIRRITANO 1,977,243

THREAD CLEANING DEVICE

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FIG. 1.

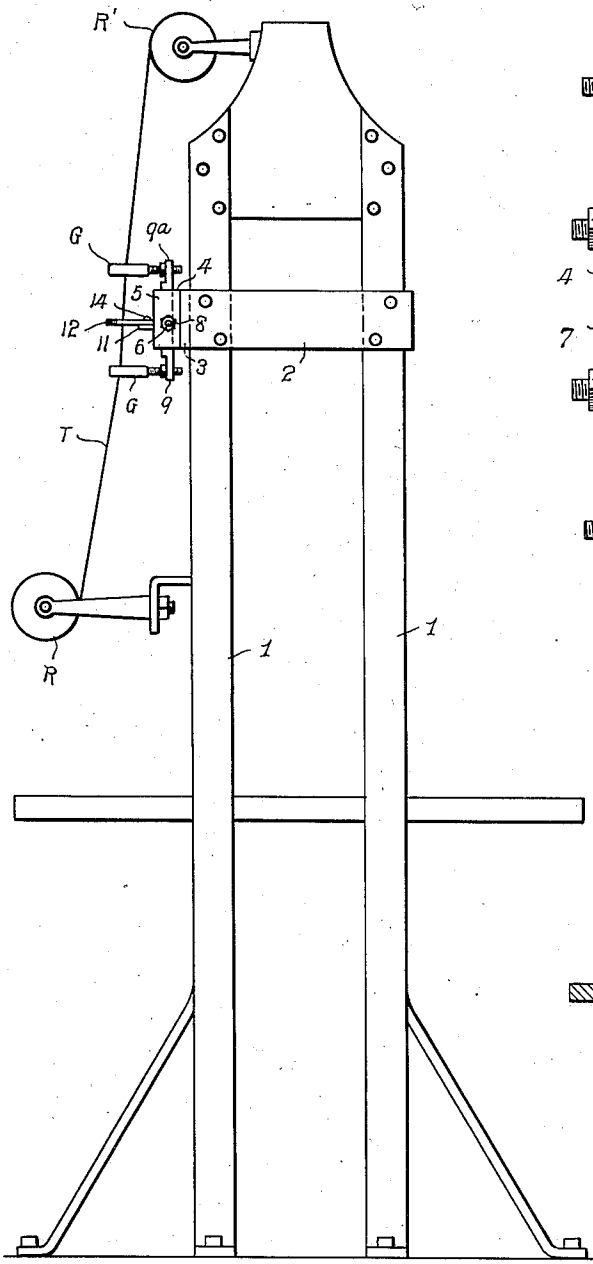


FIG. 4.

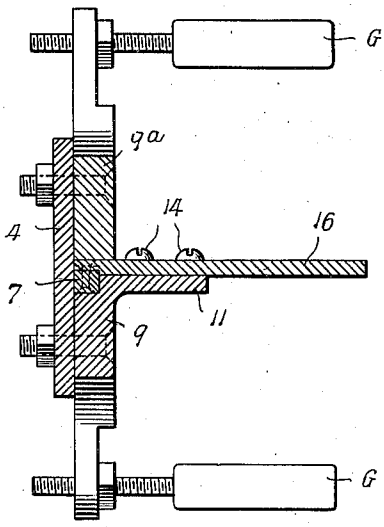
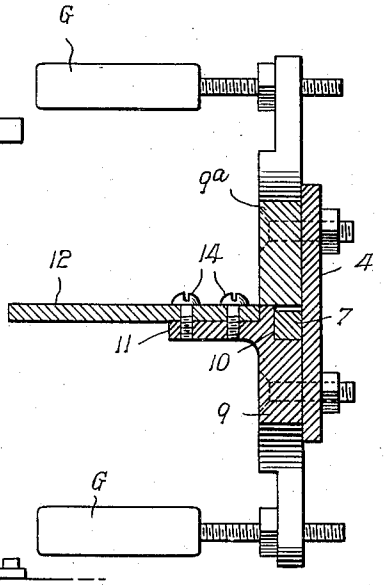


FIG. 3.



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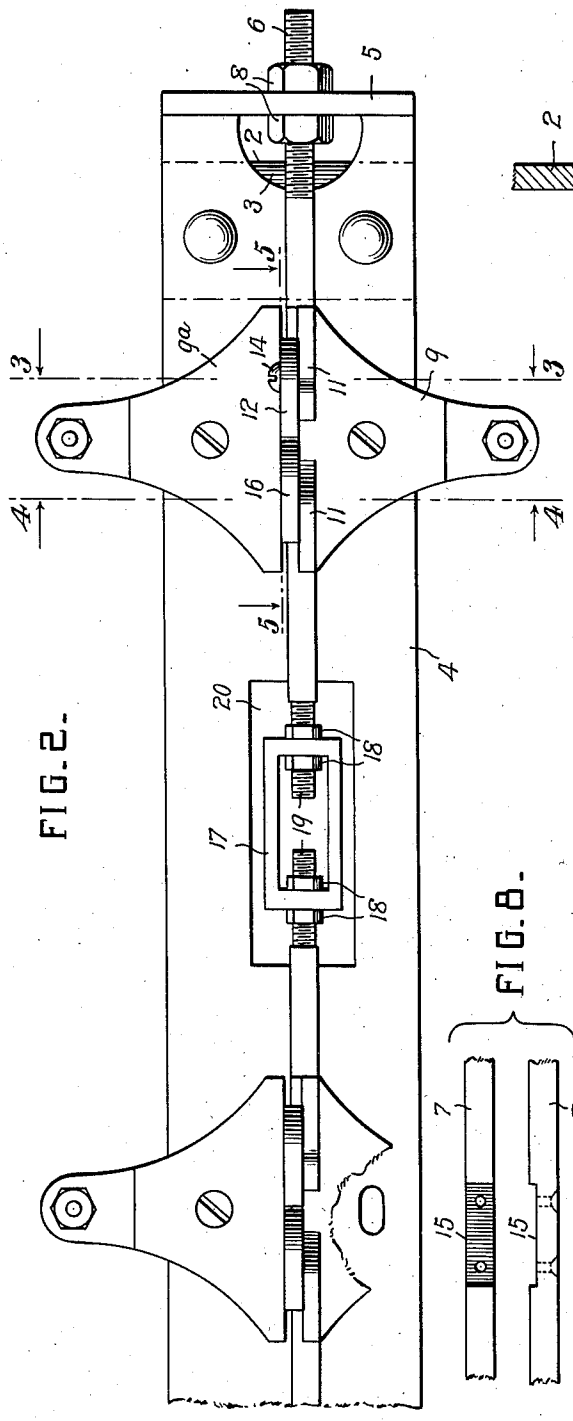


FIG. 2.

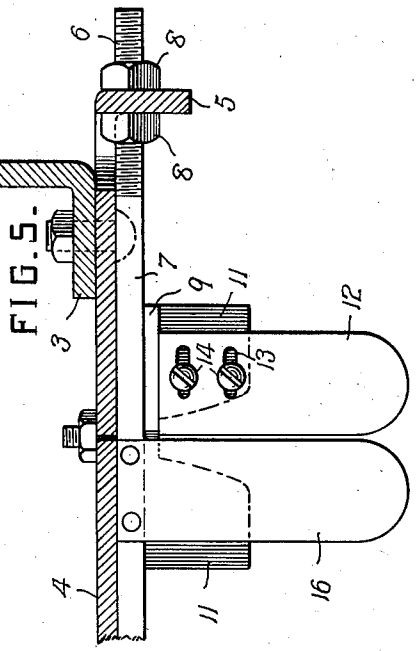


FIG. 5.

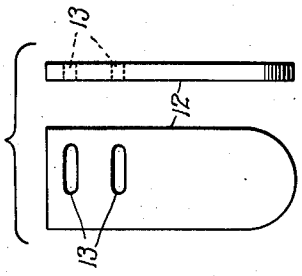


FIG. 6.

FIG. 8.

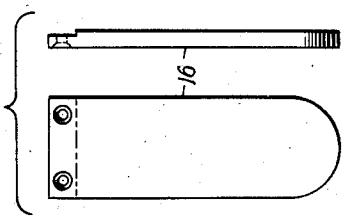


FIG. 7.

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1,977,243

THREAD CLEANING DEVICE

Anthony J. Pirritano, Scranton, Pa.

Application November 21, 1930, Serial No. 497,325

8 Claims. (Cl. 28—70)

My invention consists in a new and useful improvement in thread cleaning devices, and is designed to produce a device in which a number of threads may be cleaned simultaneously, the cleaning elements being adjustable to treat threads of various sizes. The particularly novel and useful feature of my device is the means which I provide whereby the cleaner blades of the various units of my device may be suitably adjusted.

While I have illustrated in the drawings filed herewith and have hereinafter fully described one specific embodiment of my invention, it is to be distinctly understood that I do not consider my invention limited to said embodiment but refer for its scope to the claims appended hereto.

In the drawings:

Fig. 1 is an end elevation of my device.

Fig. 2 is a side elevation of a portion of my device.

Fig. 3 is a section on the line 3—3 of Fig. 2.

Fig. 4 is a section on the line 4—4 of Fig. 2.

Fig. 5 is a section on the line 5—5 of Fig. 2.

Fig. 6 is a side and an end view of one of the adjustable fixed blades.

Fig. 7 is a side and an end view of one of the slidable blades.

Fig. 8 is a top plan and a side elevation of a portion of the rod for the slidable blades.

My device, as illustrated in the drawings, has the uprights 1, 1, at each end, with the U-shaped bar 2 bolted thereto. To the ends 3 of these bars 2, there is bolted the plate 4 extending lengthwise of the device, and having at one end the ear 5 through which loosely passes the threaded end 6 of the operating rod 7, nuts 8, 8 being provided on the end 6 for adjusting the rod 7.

I will now describe one of the thread cleaning units, it being understood that I provide a plurality of these identic units in my device.

A plate 9 suitably positioned and bolted to the plate 4 has a recess 10 through which passes the rod 7 and outwardly extending ears 11, 11, to one of which is bolted the fixed blade 12. It is to be noted that the blade 12 is provided with slots 13, 13 through which the bolts 14, 14 pass, to attach the blade 12 in position. This construction renders the blades 12 adjustable.

The rod 7 has a suitable recess 15 to receive the blade 16 bolted thereto and positioned over the other ear 11 of the plate 9.

A second plate 9–*a* is bolted to the plate 4, forming an abutment above the rod 7 and blade 16.

To the plates 9 and 9–*a* are suitably attached thread guides G.

It is obvious from Fig. 1 that the thread to be cleaned is placed in the device on the reels R, the thread T being passed through the guides G and between the blades 12 and 16 to the reels R′ on which the cleaned thread is reeled.

For suitable adjustment of different portions of the operating rod 7, I provide a frame 17 and adjusting nuts 18 on the threaded ends 19 of the rod 7 passing loosely through the ends of the frame 17, an opening 20 being suitably provided in the plate 4 to permit operation of the nuts 18.

From the foregoing description of the details of construction of my device, its use and operation will be obvious. Manipulation of the nuts 8 on the threaded end 6 of the bar 7, co-acting with the plate 5, causes the bar 7 to move relative to the plate 4, thus adjusting the slidable blades 16 relative to the fixed blades 12, thus determining the space between each pair of blades, in which the thread T must travel from the reel R to the reel R′. Thus it will be seen that I have provided means to adjust the blades for treatment of threads of varying sizes, it being understood that the space between each pair of blades is to be adapted to the exact thickness of the thread to be cleaned by the particular unit, so that, as the thread passes between the blades 12 and 16, any foreign matter, such as lint, slubs, etc., adhering to the thread, is removed by the blades.

By making the blades 12 adjustable relative to the plates 11, it is possible to correct any error in the position of the inner edges of the blades 12 caused by wear.

It is obvious that by providing the frame 17, threaded ends 19 and nuts 18, at any point or points on the rod 7, I have provided means for securing different adjustments of the various cleaning units.

Having described my invention, what I claim is:

1. In a device for cleaning thread, the combination of a plate; a second plate mounted on said first plate and having a transverse recess and two outwardly extending ears; a rod slidably mounted in said recess; a cleaner blade mounted on said rod adjacent one of said ears; and a second cleaner blade mounted on the other ear, the two blades being so related that movement of the rod secures the proper relation between the blades for cleaning thread passed between the blades.

2. In a device for cleaning thread, the combination of a plate having a transverse recess and

two outwardly extending ears; a rod slidably mounted in said recess; a cleaner blade mounted on said rod adjacent one of said ears; and a second cleaner blade mounted on the other ear, the two blades being so related that movement of the rod secures the proper relation between the blades for cleaning thread passed between the blades.

3. In a device for cleaning thread, the combination of a frame; a plate disposed longitudinally of said frame; a pair of plates mounted on said longitudinal plate; two upstanding ears on one of the plates of said pair; a cleaner blade adjustably mounted on one of said ears; a reciprocable rod disposed between the plates of said pair; and a cleaner blade mounted on the said rod in slidable juxtaposition with the other ear.

4. In a device for cleaning thread, the combination of a frame; a plate disposed longitudinally of said frame; a plurality of pairs of plates mounted on said longitudinal plate, one of the plates of each pair having two upstanding areas; a cleaner blade adjustably mounted on one ear of each plate; a reciprocable rod disposed between the plates of each pair of plates; and a cleaner blade mounted on said rod in slidable juxtaposition with each of the other ears of said plates.

5. In a device for cleaning thread, the combination of a plurality of plates, each provided with two upstanding ears; a cleaner blade mounted on one ear of each plate; a reciprocable rod disposed adjacent said plates; and a cleaner blade mounted on said rod in slidable juxtaposition with each of the other ears of said plates.

6. In a device for cleaning thread, the combination of a plate provided with two upstanding ears; a cleaner blade mounted on one of said ears; a reciprocable rod disposed adjacent said plate; and a second cleaner blade mounted on said rod in slidable juxtaposition with the other ear.

7. In a device for cleaning thread, the combination of a plate; a series of guides detachably mounted on said plate; a rod reciprocably disposed between said plate and said guides; cleaner blades mounted on said guides; and cleaner blades fixed on said rod.

8. In a device for cleaning thread, the combination of a plate; a series of guides mounted on said plate; a rod reciprocably disposed between said plate and said guides; a cleaner blade mounted on one of said guides; and a co-acting cleaner blade fixed on said rod.

ANTHONY J. PIRRITANO.