March 29, 1949. J. J. BOCCHINO 2,465,570

SPLIT SPROCKET

Filed March 23, 1945

2 Sheets-Sheet 1

FIG. 1

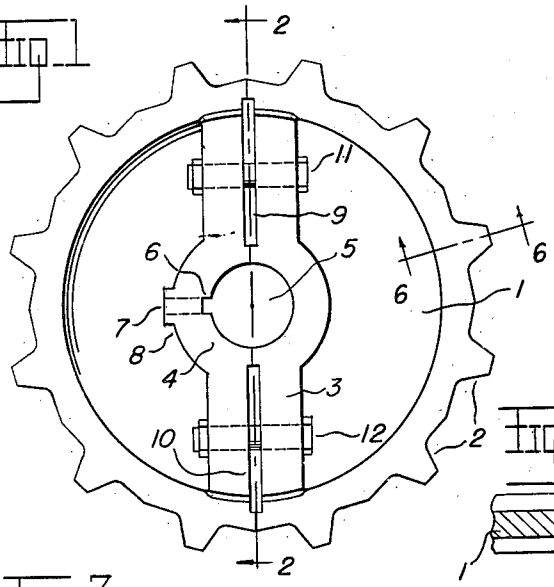


FIG. 2

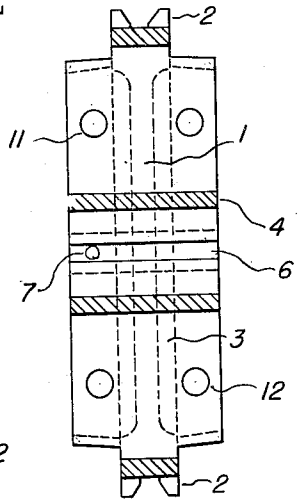


FIG. 6

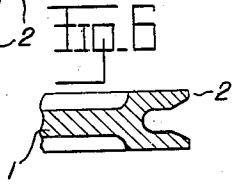


FIG. 3

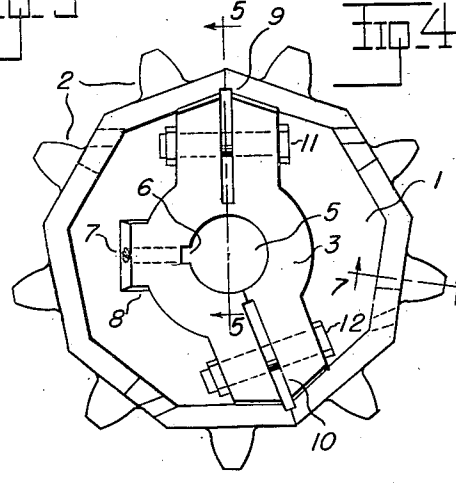


FIG. 4

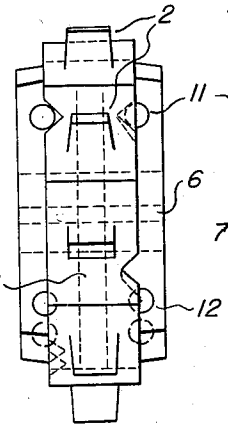


FIG. 5

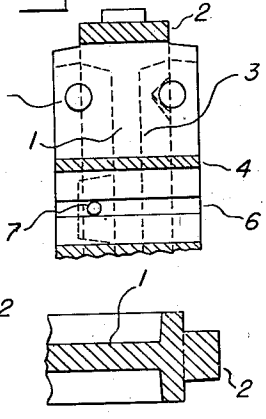


FIG. 7

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Fig. 8

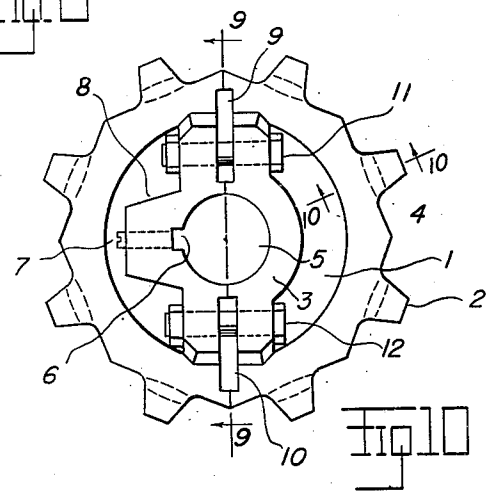


Fig. 9

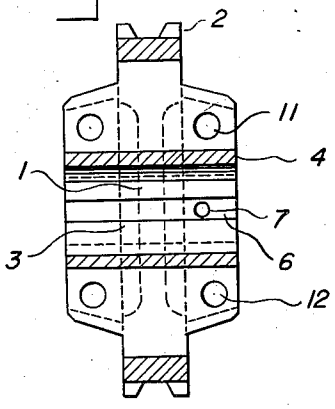


Fig. 10

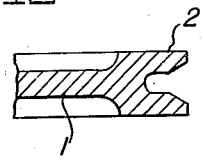


Fig. 11

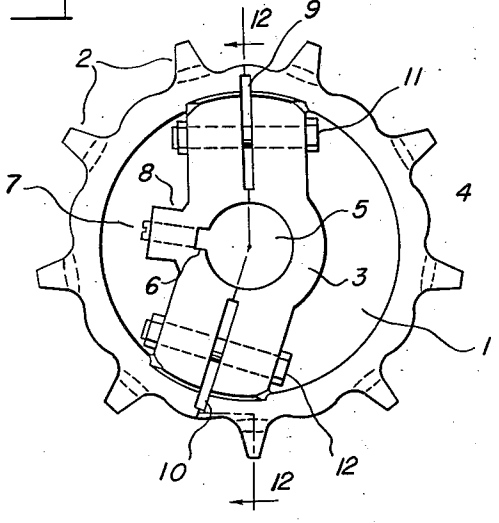
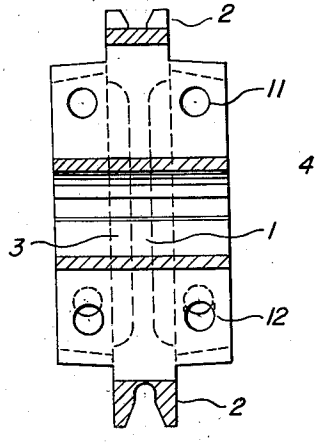


Fig. 12



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Patented Mar. 29, 1949 2,465,570

UNITED STATES PATENT OFFICE

2,465,570

SPLIT SPROCKET

Joseph J. Bocchino, Dover, N. J.

Application March 23, 1945, Serial No. 584,405

1 Claim. (Cl. 74—243)

1

My present invention, in its broad aspect, has to do with improvements in sprocket wheels, and more particularly, it is my purpose to provide an improved, split sprocket wheel, the respective elements of which are detachably connected together so that the sprocket may be quickly applied or detached from its shaft mounting for purposes of replacement, adjustment, repair or removal. My split sprocket is especially designed for use with conveyors, as for instance milk bottle conveyors and the like, where the conveyor and sprockets are subjected to a constantly damp, wet atmosphere and repeated drenchings with water causing the conveyor sprockets to rust and quickly wear and become inoperative or inapt for use to the end that many have to be replaced with consequent loss of time, labor and expense in taking down shafting to remove and replace sprockets thereon. My present sprocket is designed to greatly reduce expense and loss of time due to idleness of a conveyor to replace sprockets, but also to reduce expense and cost of repair parts. My sprockets, furthermore, may be replaced without disturbing the alignment and shafting of a conveyor, and the elements of my split sprockets fit perfectly and can be quickly set up and taken down.

My split sprocket is cast in one piece with elongated slots formed by casts so that it is merely necessary to insert a cold chisel in the slots to split the sprocket to form perfectly mating halves. The sprocket castings are clean and require no grinding of teeth, and the chain carried by my sprockets fits perfectly. There is little machining, since the shaft bore, keyway, and drill and tap holes for set screws to lock the key in place on the shaft, and the holes for the clamp bolts are all formed prior to splitting the sprocket, thereby insuring perfect fit and registry of parts.

Other and equally important objects and advantages of my invention will be apparent from the following description and drawings, and it is pointed out that changes in form, size, shape, materials, and construction and arrangement of parts is permissible and within the purview of my broad inventive concept, and the scope of the appended claim.

In the drawings, wherein I have illustrated a preferred form of my invention:

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Figure 1 is a front elevation of my sprocket of the type having twelve teeth;

Figure 2 is a section on the line 2—2 of Figure 1;

Figure 3 is a front elevation of my sprocket of the type having nine teeth;

Figure 4 is an edge view of the type shown in Figure 3;

Figure 5 is a section on the line 5—5 of Figure 3;

Figure 6 is a section on the line 6—6 of Figure 1;

Figure 7 is a section on the line 7—7 of Figure 3;

Figure 8 is a front elevation of my sprocket of the type having eight teeth;

Figure 9 is a section on the line 9—9 of Figure 8;

Figure 10 is a section on the line 10—10 of Figure 8;

Figure 11 is a front elevation of another form of my nine tooth sprocket; and

Figure 12 is a section on the line 12—12 of Figure 11.

In the drawings, wherein like characters of reference are used to designate like or similar parts throughout the several views:

The numeral 1 designates the body of my sprocket which has teeth 2, a web 3 and a hub 4. The hub has a shaft bore 5 and key 6 and a key locking bolt 7 in the boss 8 of the web. The web may be on the diameter, as shown in the eight and twelve toothed forms of Figures 1 and 8, or, off-set from the shaft bore, as in the nine tooth forms of Figures 3 and 11. In casting the sprocket, elongated slots 9 and 10 are formed in the web from cores, and after boring and machining the sprocket, each sprocket is split by a cold chisel inserted in the slots, to form perfectly fitting elements which are bolted together by bolts 11 and 12 so that the sprockets may be mounted on shafts by simply clamping the elements together by the bolts 11 and 12, and dismounted in the same manner for adjustment or replacement.

From the foregoing it is believed that the operation and advantages of my invention will be apparent, but it is again emphasized that interpretation of its scope should only be conclusive when made in the light of the subjoined claim.

I claim:

A sprocket comprising an integral sprocket rim, sprocket teeth circumferentially spaced thereon, a web attached to and integral with opposed portions of said sprocket rim, said web having a bore whereby said sprocket may be mounted on a shaft, elongated slots in said web on opposite sides of said bore, each said elongated slot extending substantially radially between the bore and the rim and terminating within predetermined distances from the respective peripheries of said rim and bore, said slots being adapted to receive a tool whereby said sprocket can be split along said web into mating portions for assembly about the shaft, and bolt means extending transversely through said web on opposite sides of the bore and in the region of said elongated slots for securing the mating portions together.

JOSEPH J. BOCCHINO.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
728,466	Huse	May 19, 1903
1,623,814	Scott	Apr. 5, 1927
2,382,740	Noffsinger	Aug. 14, 1945

FOREIGN PATENTS

Number	Country	Date
394,706	Great Britain	July 3, 1933