

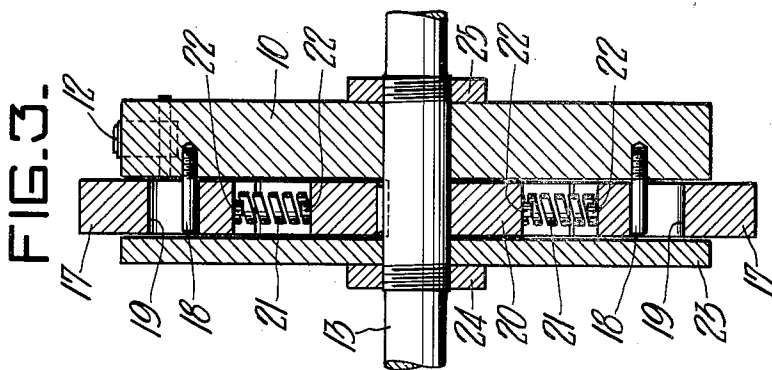
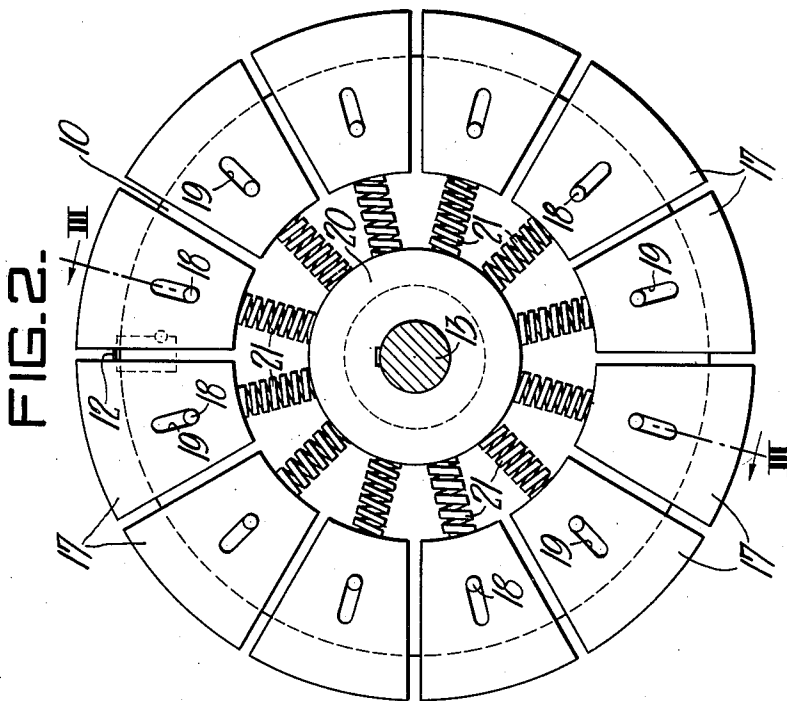
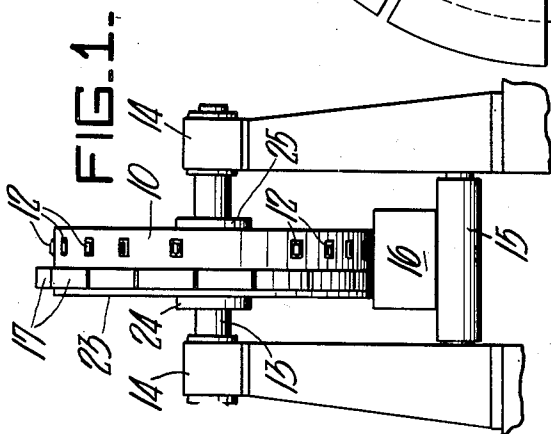
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STAMPING WHEEL

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## UNITED STATES PATENT OFFICE

2,585,410

## STAMPING WHEEL

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2 Claims. (Cl. 101-28)

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This invention relates to improvements in stamping wheels for marking steel billets or the like.

An object of the invention is to provide improved stamping wheels in which the dies and the wheel mounting are subject to a minimum of mechanical shock, thereby reducing wear on these parts and prolonging their useful life.

A further object of the invention is to provide improved stamping wheels which have buffer means for cushioning the initial contact between the wheel and each article, such as a billet or the like, and for automatically placing the dies in motion at the same linear speed as the article before the dies make contact.

In accomplishing these and other objects of the invention, I have provided improved details of structure, a preferred form of which is shown in the accompanying drawing, in which:

Figure 1 is an end elevational view of an improved stamping wheel embodying features of the present invention and mounted for marking billets;

Figure 2 is a side elevational view of the wheel with the face plate removed to illustrate the mechanism; and

Figure 3 is a sectional view of the wheel taken substantially on line III-III of Figure 2.

Referring more in detail to the drawing:

The stamping wheel of the present invention comprises the usual disk 10 around the circumference of which dies 12 are removably affixed. The wheel is affixed on a shaft 13 which is rotatably supported in any suitable mounting, fixed bearings 14 being illustrated. The wheel is mounted over a roller table 15 which forms a course for travel of articles 16, such as steel billets or the like. Passing articles engage the wheel and cause it to rotate and thus the dies imprint marks in the upper surface of the article.

In accordance with the present invention, a plurality of buffer segments 17 are mounted on the face of disk 10 for radial sliding movement. As shown in Figure 2, the segments form a circular series which extends around the entire circumference of the disk. The disk has a plurality of pegs 18 protruding from its face and each segment has a radial slot 19 receiving one of said pegs. Thus engagement of the pegs with the extremities of the slots limits movement of the segments. An annular hub 20 of slightly greater thickness than the segments is fixed to shaft 13 next to disk 10 and the segments are spaced radially from said hub. Compression springs 21 bear between the outer circumference

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of hub 20 and the inner faces of the segments, preferably being received on bosses 22 on the hub and segments. The compression springs normally force the segments outwardly so that they protrude beyond the circumference of the disk somewhat farther than dies 12, but the segments are retractible radially against the action of the springs sufficiently to enable the dies subsequently to engage the article and imprint a mark therein. A retaining plate 23 is carried by shaft 13 over the hub and segments. The elements are retained in assembled relation by nuts 24 and 25 secured to the shaft outside the retaining plate and disk respectively.

In operation, as articles 16 approach the wheel, they first engage successive buffer segments 17 which are cushioned by springs 21. Said segments and springs absorb the initial shock of engagement, and thus there is no abrupt shock on the dies nor on the wheel mounting. Engagement of the article with the segments also starts the wheel rotating and by the time the dies engage the article, both the dies and the article are moving at the same linear speed. Thus wear on the dies is reduced, since contact between the dies and article does not initiate movement of the wheel.

While I have shown and described only a single embodiment of the invention, it is apparent that modifications may arise. Therefore, I do not wish to be limited to the disclosure set forth but only by the scope of the appended claims.

I claim:

1. A stamping wheel for imprinting marks in the surface of moving articles comprising a disk, dies affixed to said disk at the circumference thereof, means rotatably mounting said disk in position for the dies to engage passing articles, a hub adjacent said disk, a plurality of buffer segments, means on said disk supporting said segments for radial sliding movement on the face of said disk, said segments forming a circular series spaced radially from said hub, compression springs between said hub and said segments urging the latter outwardly, said segments normally protruding from the circumference of said disk beyond said dies to contact articles ahead of said dies and being retractible to enable the dies subsequently to engage the articles, a retaining plate over said hub and said segments, and means retaining said disk, said hub and said retaining plate in assembled relation.

2. A stamping wheel for imprinting marks in the surface of moving articles comprising a shaft, a disk affixed to said shaft, dies affixed to said

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disk at the circumference thereof, means rotatably mounting said shaft in position for the dies to engage passing articles, a hub on said shaft adjacent said disk, a plurality of pegs protruding from the face of said disk around said hub, a plurality of buffer segments having slots receiving said pegs, said segments being radially slidable with respect to said disk and forming a circular series spaced radially from said hub, compression springs between said hub and said segments urging the latter outwardly, said segments normally protruding from the circumference of said disk beyond said dies to contact articles ahead of said dies and being retractible against the action of said springs to enable the dies subsequently to engage the articles, a retaining plate on said shaft over said hub and said segments, and means on said shaft retaining said

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disk, said hub and said retaining plate in assembled relation.

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