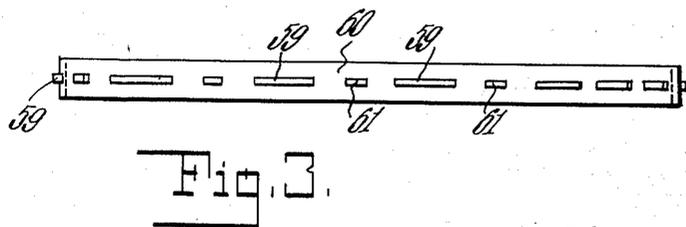
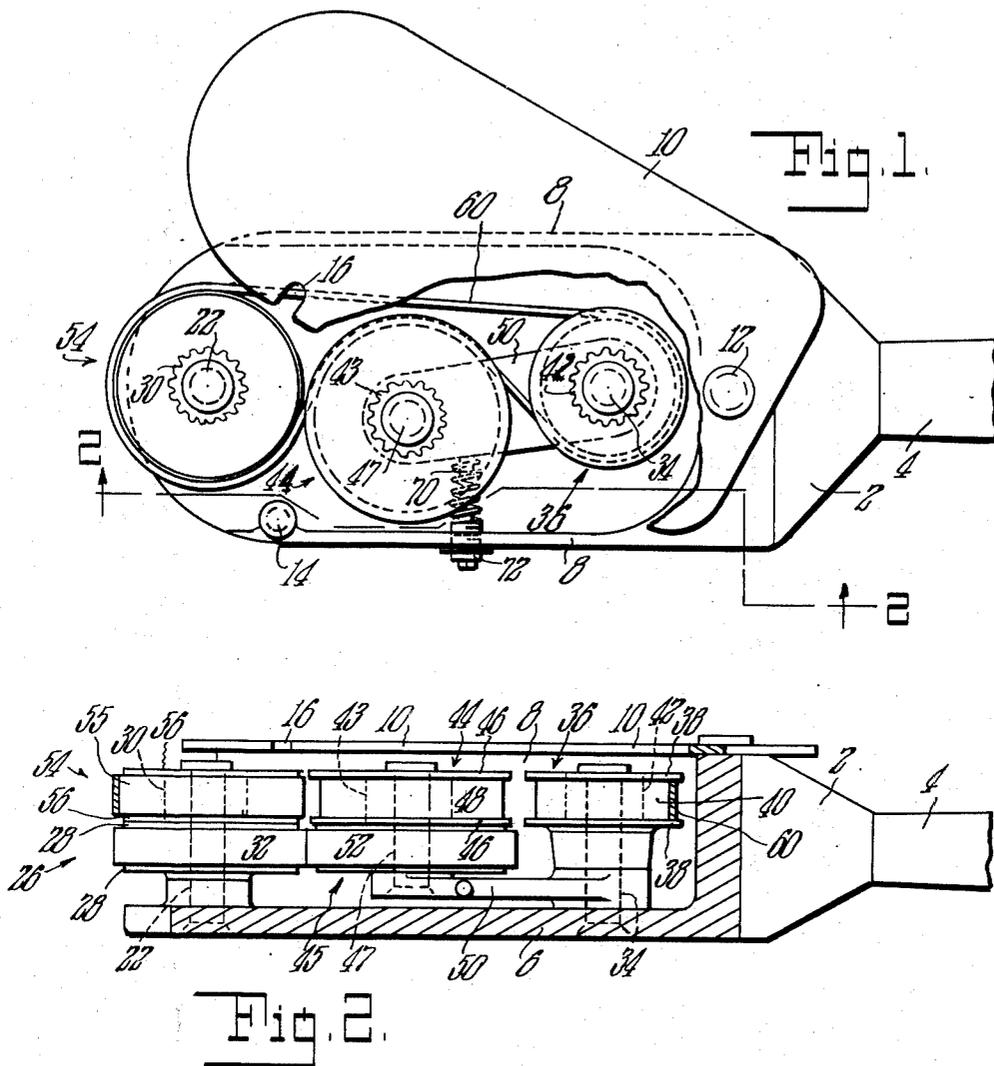


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RULING AND STRIPING DEVICE

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RULING AND STRIPING DEVICE

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This invention relates to improvements in ruling and striping devices.

The principal objects of the invention are directed to the provision of a striping or lining device which is adapted to apply continuous lines of various characteristics to various objects.

The device of the invention is adapted for many and various uses where it is desired to make continuous lines readily and quickly. As an example, a person, such as a draftsman, employs rather long lines of one kind or another made by a ruling pen which is tedious and time consuming.

The device of the invention in a broad way includes a holder in which a continuous band-like ruling or lining member has ink or other marking material applied thereto so that the device may be rolled along a drawing or the like to provide a long line which is formed according to the configuration of the band.

The construction is such that an ink supplying wheel operates to supply the band-like lining or ruling member with ink during movement of the band.

The device makes it possible to quickly and easily apply lines which may vary as may be desired, the type of the line being limited only by the number of interchangeable ruling bands of the device.

All of the above objects I accomplish by means of such structure and relative arrangements of parts thereof, as will fully appear by a perusal of the description to follow and by various specific features which will be hereinafter set forth.

To the above cited and other ends and with the foregoing and various other novel features and advantages and other objects of my invention as will become more readily apparent as the description proceeds, my invention consists in certain novel features of construction and in the combination and arrangement of parts as will be hereinafter more particularly pointed out in the claims hereunto annexed and more fully described and referred to in connection with the accompanying drawings wherein:

Fig. 1 is a plan view of a lining or ruling device embodying the novel features of the invention;

Fig. 2 is a partial sectional and side elevational view on the line 2—2 of Fig. 1; and

Fig. 3 is a plan view of a band-like lining or marking element.

Referring now to the drawings more in detail, the invention will be fully described.

A housing 2 has a handle 4 of any desired form extending therefrom as shown in Fig. 1.

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This housing 2 has a lower wall 6 and side walls 8 and is normally open on its upper side except for a movable closure 10. The closure 10 is swingable on a stud 12 so as to close the housing.

A stud 14 on the housing is receivable in a slot 16 of the closure when the closure is in closed position and suitable means may be provided for releasably holding the closure in closed position.

A shaft 22 is fixed to the lower wall 6. A lower driving wheel 26 has upper and lower flanges 28 and an upper knurled stem 30 with a central driving portion 32 between said flanges. Said driving wheel is rotatable on shaft 22.

An idler shaft 34 is secured to the lower wall 6 in any suitable manner and extends upwardly therefrom, as shown.

An idler wheel 36 is rotatable on the shaft 34 and includes flanges 38 at opposite sides of a central portion 40. A knurled stem 42 extends upwardly from the upper flange 38.

An inking wheel 44 has upper and lower flange portions 46 and a central portion 48 therebetween. This wheel 44 is adapted to slip over a knurled portion 43 of a driven wheel 45. The wheel 45 is rotatable on a stud 47 fixed to the outer free end of a lever 50 swingable on shaft 34.

A central portion 52 of wheel 45 is in frictional engagement with the central portion 32 of wheel 26 so that wheel 45 may be rotated by wheel 26.

A wheel 54 has flanges 56 and fits on portion 30 of wheel 26 therebelow. An endless marking band-like member 60 is provided which extends around the central portion 40 of wheel 36 and around a central portion 55 of wheel 54.

The marking or lining member 60 will be formed from flexible or yieldable material so that the inking wheel while inking may tension the member 60. To bring about the desired tensioning a tension spring 70 is interposed between the lever 50 and a stud 72 screw threaded in a wall 8 of the housing.

Outer ends of the lower wall 6, the closure 10 and side walls 8 terminate inwardly of the wheel 54 so as to provide an end opening through which said wheel extends.

In operation, the device is caused to traverse the object being lined or marked and the object may be a drawing or the like. The endless member 60 as the device moves along travels continuously so as to become inked and apply the characters which it carries. The inner side of the member 60 extends around wheels 54 and 36 while the outer side contacts the inking wheel.

There may be many different lining or marking members each carrying certain characters or

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combinations of characters. The member 60 of Fig. 3 carries dashes 59 and dots 61. The markings applied by the device will correspond to the characters of that member 60 which is being used. It will be understood that a plurality of members 60 will be interchangeable.

The upper wheels are removable from the knurled portions of the wheels therebelow to facilitate changing of wheels and inking of wheel 44 when it becomes necessary.

The central portion 43 of the inking wheel will be formed so as to retain inking or marking material and apply the same to the characters of the marking member.

The contacting central portions of the wheels 26 and 45 will frictionally engage one another so that as the marking element rotates wheel 54 the wheel 26 rotates wheel 45 and thereby the inking wheel. This is so the inking wheel is not necessarily rotated by the endless band. Thereby the inking wheel may efficiently perform its function while acting to overcome the slack in member 33. If desired, in some cases, the lower wheels 26 and 45 may be eliminated so that the inking wheel is driven by the marking or lining member.

The invention may be embodied in other specific forms without departing from the essential characteristics thereof. Hence, the present embodiments are therefore to be considered in all respects merely as being illustrative and not as being restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all modifications and variations as fall within the meaning and purview and range of equivalency of the appended claims are therefore intended to be embraced therein.

What it is desired to claim and secure by Letters Patent of the United States is:

1. A lining device of the class described comprising in combination, a housing having an opening in an outer end thereof, an upper outer wheel and a lower drive wheel mounted for rotation in said housing with a portion of said upper wheel extending through said opening, an upper inking wheel and a lower driven wheel mounted for rotation in said housing with said lower driving and driven wheels in contact, an idler wheel mounted for rotation in said housing, and a flexible band-like marking element having an inner side around said outer upper and said idler wheels and an outer character carrying side in contact with said inking wheel.

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2. A lining device of the class described comprising in combination, a housing having an opening in an outer end thereof, an upper outer wheel and a lower drive wheel mounted for rotation in said housing with a portion of said upper wheel extending through said opening, an upper inking wheel and a lower driven wheel mounted for rotation in said housing with said lower driving and driven wheels in contact, an idler wheel mounted for rotation in said housing, and a flexible band-like marking element having an inner side around said outer upper and said idler wheels and an outer character carrying side in contact with said inking wheel, said inking and driven wheels being movable transversely relative to the axis of rotation thereof for tensioning of said band, and means for moving said wheels.

3. A lining device of the class described comprising in combination, a housing, an upper outer wheel and a lower drive wheel mounted for rotation in said housing, an upper inking wheel and a lower driven wheel mounted for rotation in said housing with said lower driving and driven wheels in contact, an idler wheel mounted for rotation in said housing, and a flexible band-like marking element having an inner side disposed around said upper outer and idler wheels and an outer character-carrying side in contact with said inking wheel.

4. A lining device of the class described comprising in combination, a housing, an upper outer wheel and a lower drive wheel mounted for rotation in said housing, an upper inking wheel and a lower driven wheel mounted for rotation in said housing with said lower driving and driven wheels in contact, an idler wheel mounted for rotation in said housing, a flexible band-like marking element having an inner side around said upper outer and said idler wheels and an outer character carrying side in contact with said inking wheel, said inking and driven wheels being movable transversely relative to the axis of rotation thereof for tensioning of said band.

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