H. C. HART.

EDGING MACHINE.

APPLICATION FILED SEPT. 4, 1914.

1,124,430.

Patented Jan. 12, 1915.

2 SHEETS—SHEET 1.

Fig. 2

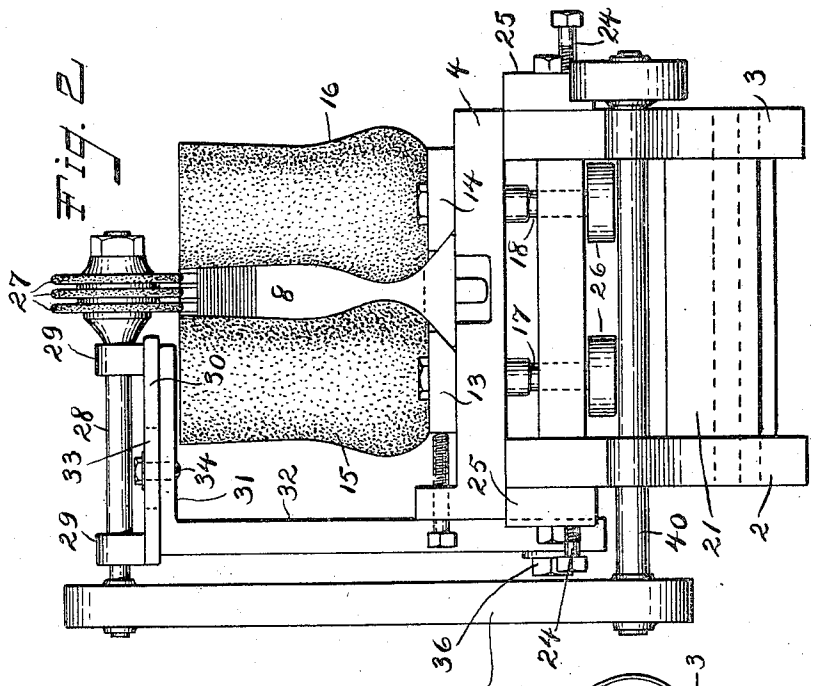
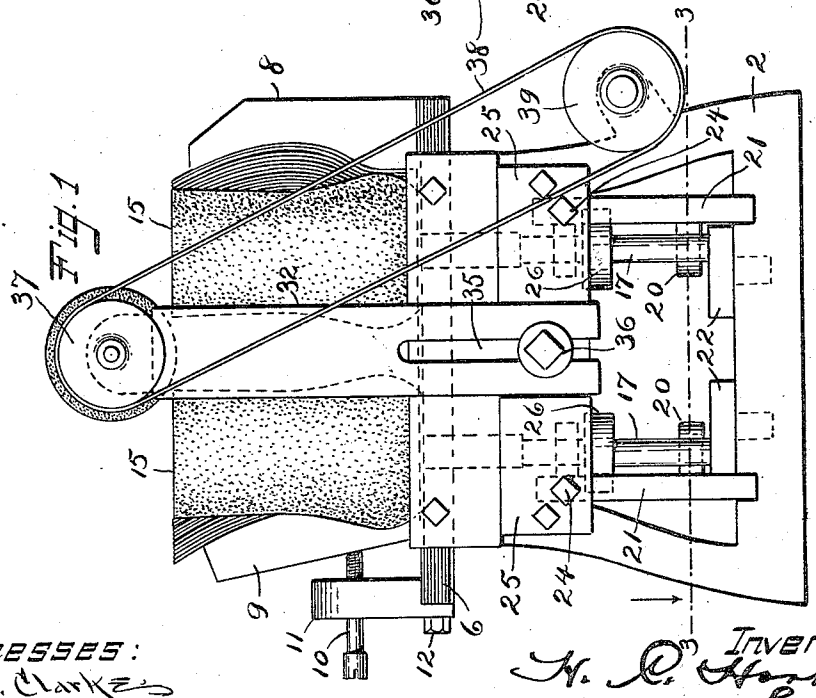


Fig. 1



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2 SHEETS—SHEET 2.

Fig. 3

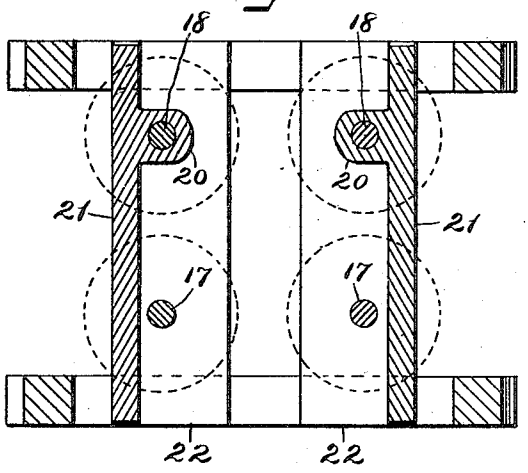



Fig. 6

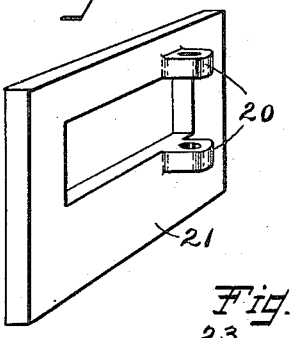



Fig. 7

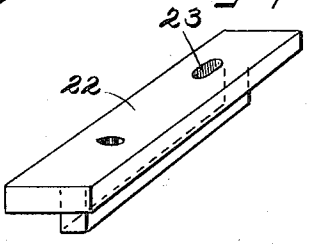



Fig. 4

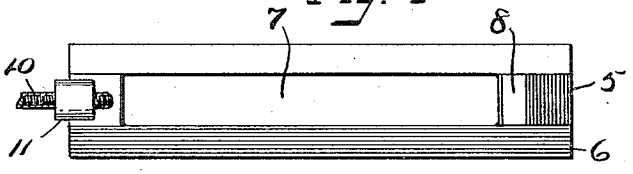



Fig. 8

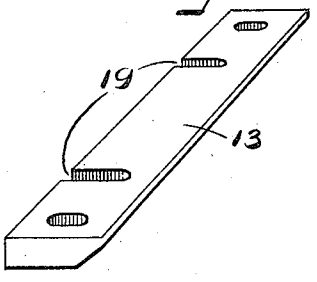
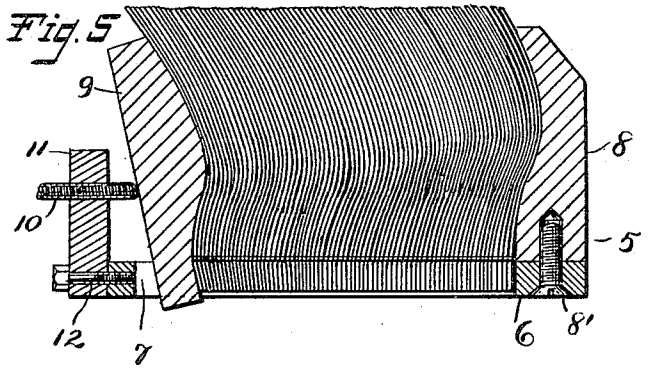



Fig. 5




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# UNITED STATES PATENT OFFICE.

HUBERT C. HART, OF UNIONVILLE, CONNECTICUT.

## EDGING-MACHINE.

1,124,430. Specification of Letters Patent. Patented Jan. 12, 1915.

Application filed September 4, 1914. Serial No. 860,175.

*To all whom it may concern:*

Be it known that I, HUBERT C. HART, a citizen of the United States, residing at Unionville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Edging-Machines, of which the following is a specification.

This invention relates to edging-machines, the primary object of the invention being the provision of an apparatus of this character which is simple in construction, effective in action and by which the "edging" as it is known, of forks, spoons and other articles can be materially facilitated.

In the drawings accompanying and forming part of the present specification I have shown in detail one of the several forms of embodiment of the invention, which to enable those skilled in the art to practise the same will be set forth fully in the following description. I do not restrict myself to this disclosure; I may depart therefrom in several respects within the scope of the invention defined by the claims following said description.

Referring to said drawings: Figure 1 is a front elevation of an edging machine involving my invention. Fig. 2 is a side view of said machine as seen from the right in Fig. 1. Fig. 3 is a horizontal section on the line 3—3 of Fig. 1. Fig. 4 is a top plan view of a carrier. Fig. 5 is a vertical sectional view of the same with the group or gang of articles clamped thereto. Fig. 6 is a perspective view of an adjustable member. Fig. 7 is a like view of a frame member, and, Fig. 8 is a like view of a gib.

Like characters refer to like parts throughout the several views.

A machine involving my invention can be utilized with advantage for edging various kinds of articles; for instance, forks or spoons. As illustrated the machine is organized for edging forks. One of the elemental aims I have in view is the maintaining in a group, gang or series, of such articles, and while thus maintained, subjecting them to an edging operation through the intervention of a suitable tool or tools. The articles can be maintained in the relation mentioned in any desirable manner, for example by suitable clamping means which holds them rigidly together and the edging action can be obtained through the agency of several rotary wheels. When the articles are of a certain type, for instance, forks, I prefer also to point them, and this pointing operation can be obtained by a plurality of rotary wheels. The invention as will be inferred does not lie in any details but rather in certain broad relations; I have shown, as intimated, mechanism by which the desired results can be properly secured. With the foregoing general observations it is now in order to refer fully to the construction illustrated.

The framework for supporting the different parts of the machine may be of any suitable character. As shown the framing comprises the duplicate side sections 2 and 3 connected at their top by the plate 4, said plate 4 constituting a convenient means for sustaining an article-carrier such as that denoted in a general way by 5 and shown in detail in Figs. 4 and 5. The character of the article carrier and the clamping means usually associated therewith, will depend in a measure upon the type of article to be edged. As shown the article carrier is adapted for receiving a plurality of forks. This article carrier 5 comprises a body as 6 shown as oblong and as longitudinally slotted as at 7 to receive the shanks of the forks. From one of the cross bars of the body 5 the one at the right in Fig. 4, there rises the clamping member 8 which is preferably rigidly fastened in place and for this means the screw 8′ may be utilized. The active or inner surface of this relatively stationary clamping member 8 is shaped to conform to the curvature of the rear face of the shank and head portion of the forks. Coöperative with the relatively stationary clamping member 8 is the movable clamping member 9, the curvature of the operative face of which also conforms to the shape of the inner face of the forks. The lower part of the clamping member 9 extends into the slot 7 and between its ends is engaged by the screw 10 tapped through the post 11 rising from the body 6, and secured to said body in some suitable manner for instance by the screw 12. It will be clear that the forks (or it may be spoons) are solidly and substantially held between the clamping members 8 and 9 and that while the articles are thus securely clamped they are simultaneously subjected to the edging operation of suitable means, for example, and as will hereinafter appear, several emery wheels. This carrier 5 in the present case,

has a sliding movement across the upper side of the support or plate 4 and is guided in a straight path by suitable means such for instance as the gibs 13 and 14, the inner edges of which are beveled to overlie and engage the correspondingly beveled lateral portions of the body 6, there being thus presented a guideway for the carrier.

As shown the means for edging the articles consists of two pairs of wheels 15 and 16, the wheels 15 being adapted to act against one side of each fork on the travel of the carrier 5, while the wheels 16 simultaneously act against the opposite edges of the forks, the peripheries of the several wheels 15 and 16 being shaped to conform to the longitudinal edge curvature of the forks or other articles. I should explain that the wheels or edge members 15 and 16 are arranged in opposite pairs, each pair comprising a wheel 15 and a wheel 16 directly opposite each other, the active surfaces of the wheels extending the complete length of the edges of the articles to be edged. As shown the wheels 15 and 16 are fastened to shafts 17 and 18 which extend through the top or plate 4. The shafts 17 and 18 extend through notches 19 disposed transversely of the gibs 13 and extending inwardly from the outer edges of said gibs, these notches permitting adjustment of the gibs 13 and 14 toward or from each other and at the same time permitting adjustment of one pair of shafts, for instance the shafts 18. Owing to these adjustments, I can provide for the taking up of wear and also insure extreme accuracy. The shafts 18 extend through superposed projections 20 in the duplicate bearings 21 which face each other and which bearings 21 as will hereinafter appear are adjustable transversely of the framework. The shafts 17 extend through openings in the cross pieces 22 connecting and rigidly secured to the frame members 2 and 3, said cross pieces 22 having longitudinal slots 23 (see Fig. 7) through which the shafts 18 extend. The brackets or bearings 21 are engaged at their ends by supporting and adjusting screws 24 tapped through projections 25 on the framework of the machine and by the manipulation of which the bearings 21 can be adjusted transversely of the machine to effect the movement of one or both wheels 16 toward or from the companion wheels 15. The shafts 17 and 18 may be rotated in any desirable manner, for instance by pulleys 26 rigidly connected therewith and adapted to be connected by belting (not shown) with overhead pulleys.

When the machine is employed for edging forks I prefer to incorporate therein as previously stated means for sharpening tines of the forks and the properly spaced wheels 27 answer satisfactorily in this connection, these wheels extending into the spaces between the tines of the forks and as they rotate sharpening said tines. Said wheels are as shown fastened to the shaft 28 supported for rotation by the bearings 29 on the plate 30 supported as shown by the inwardly extending arm 31 at the top of the upright 32. The plate 30 as shown is supported for longitudinal adjustment by the arm 31, said plate having a longitudinal slot 33 to receive the screw 34 tapped into the arm 31. By loosening the screw 34 the plate 30 can be adjusted inward or outward as may be desired, and when the adjustment is secured it can be maintained by tightening said screw 34. The upright 32 is also adjustable and as illustrated it has in its lower portion the longitudinal slot 35 to receive the screw 36 tapped into the framework of the machine. By loosening the screw 36 the upright 32 can be adjusted up or down and when the adjustment is obtained it can be held by setting said screw 36. The spindle or shaft 28 may be driven in any desirable manner, for example, said spindle may be provided with the pulley 37 connected by the belt 38 with the pulley 39 on the shaft 40 rotated by power or otherwise.

I desire to call attention to the fact that the axis of rotation of each of the two pairs of wheels 15 and 16 is outside the lateral portion or portions of the articles which are to be edged, the group of articles moving in the present case between the axes of rotation of the wheels whether there be two pairs or not, the axis of rotation of the sharpening or pointing wheels 27 being transverse and practically at right angles to the axes of motion of said grinding wheels.

What I claim is:

1. An edging machine comprising means for holding a plurality of articles in a group, a rotary grinding wheel for edging said articles, the axis of rotation of the grinding wheel being outside the lateral portion of said articles, and means for imparting a relative movement to the grinding wheel and articles.

2. An edging machine comprising a pair of rotary grinding wheels, a carrier provided with means for holding a group of articles, means for relatively moving the articles and grinding wheels relatively past each other, the grinding wheels being adapted to edge the articles, said articles being situated between the axes of rotation of the wheels.

3. An edging machine comprising means for holding a plurality of articles in a group, means for edging the articles thus held, and means for sharpening the articles thus held.

4. An edging machine comprising a carrier having a slot to receive the butts of articles to be edged, the carrier being provided with means for clamping the articles, ro-

tary wheels to edge opposite sides of said articles while clamped, the articles while clamped being situated between the axes of rotation of the wheels, and means for relatively operating the carrier and wheels.

5. An edging machine comprising a carrier slotted to receive the butts of articles, said carrier having fixed and adjustable clamping members to clamp the articles therebetween, and edging wheels to act upon opposite edges of the articles thus clamped.

6. The combination of means for clamping a series of articles in a group, rotary wheels to edge opposite sides of the articles, means for relatively operating the wheels and the carrier, the articles being situated between the axes of rotation of the wheels and one of the latter being adjustable toward and from the articles.

In testimony whereof I affix my signature in presence of two witnesses.

HUBERT C. HART.

Witnesses:
MARY L. SMITH,
L. L. MARKEL.

**Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents Washington, D. C."**