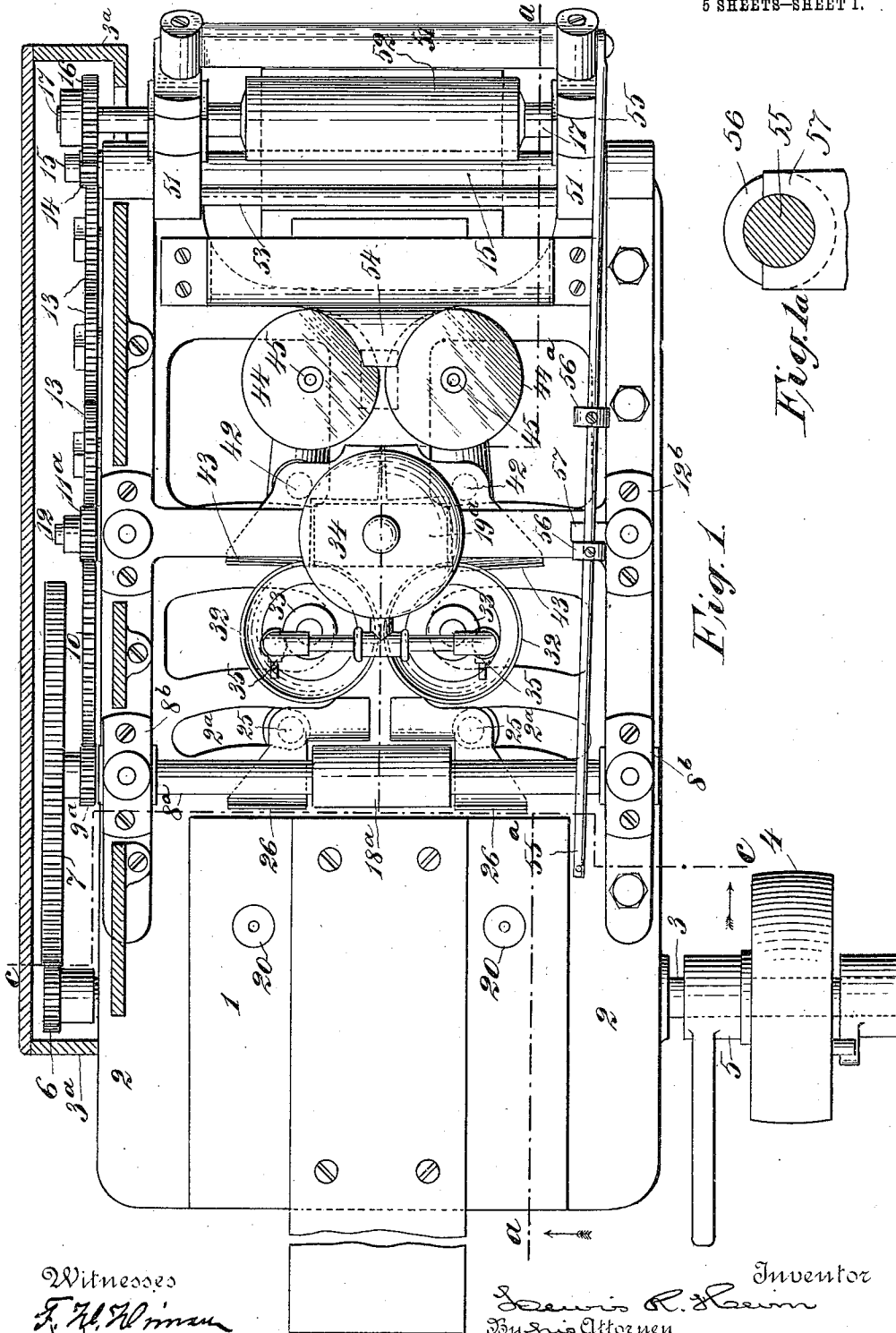


L. R. HEIM.
 AUTOMATIC EDGE IRONER FOR COLLARS AND CUFFS.
 APPLICATION FILED MAR. 28, 1907.

1,064,644.

Patented June 10, 1913.

5 SHEETS—SHEET 1.



Witnesses
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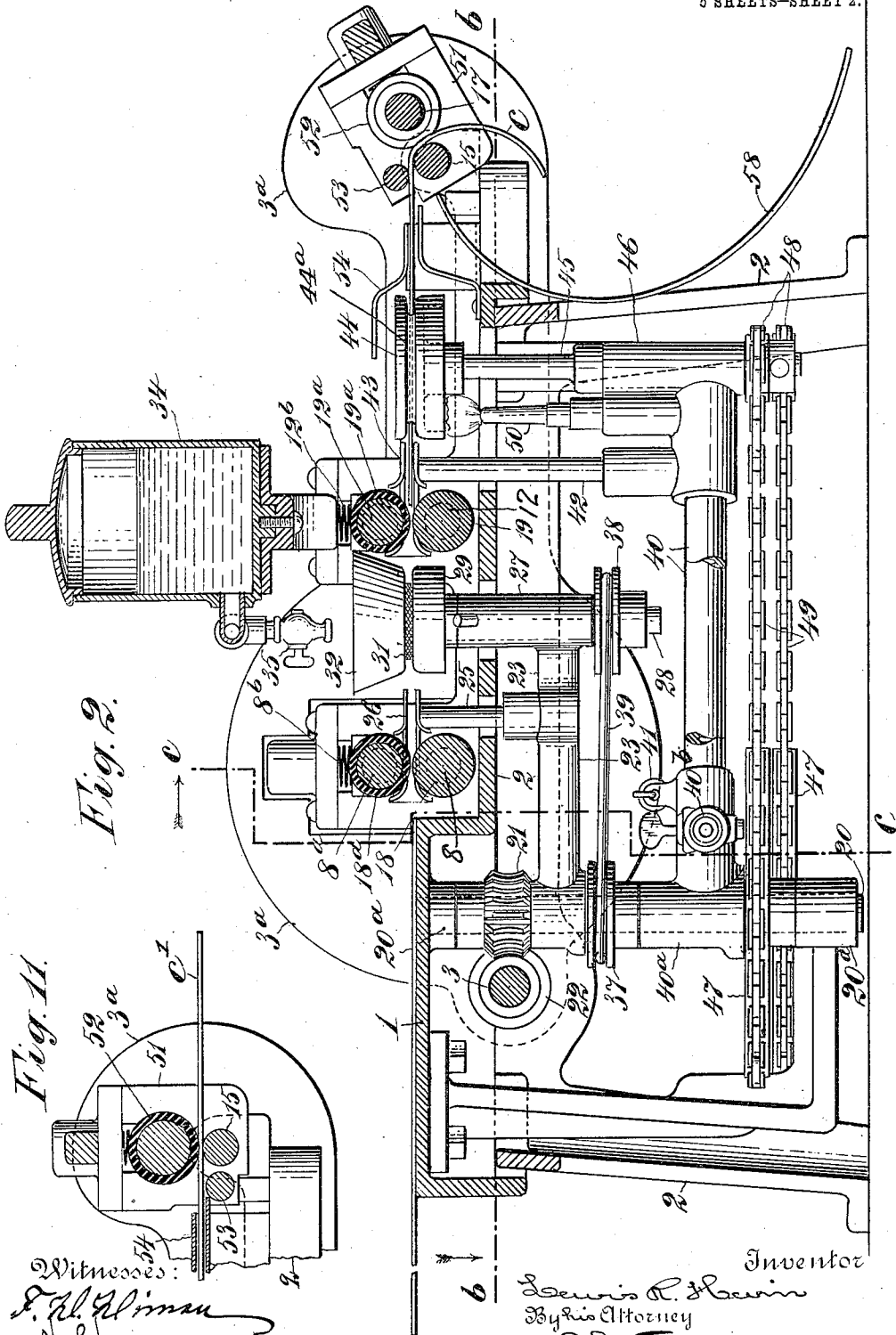
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5 SHEETS—SHEET 2.



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5 SHEETS—SHEET 3.

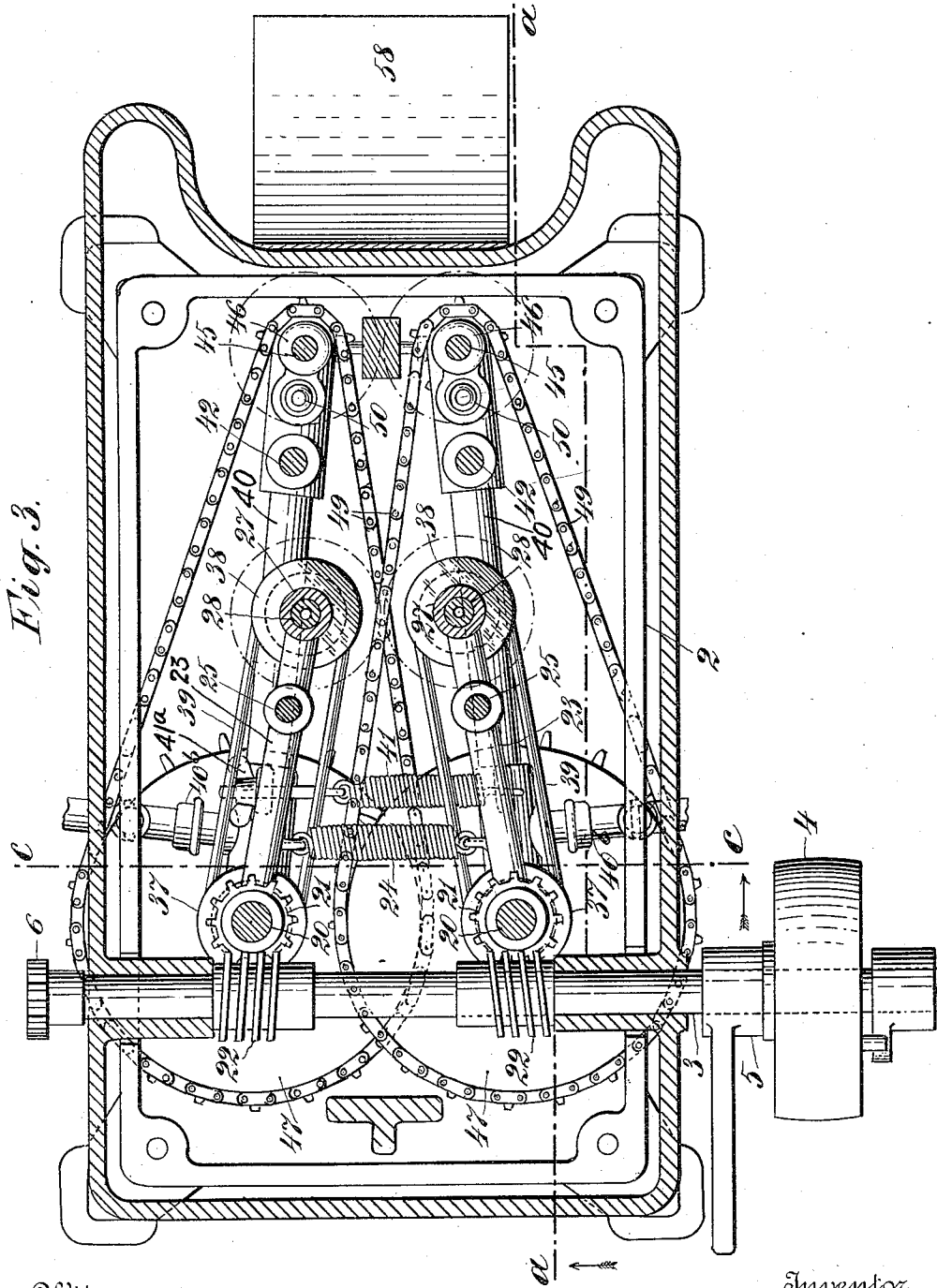


Fig. 3.

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5 SHEETS—SHEET 4.

Fig. 10.

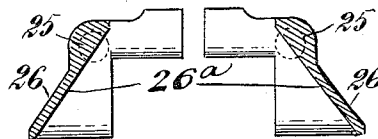
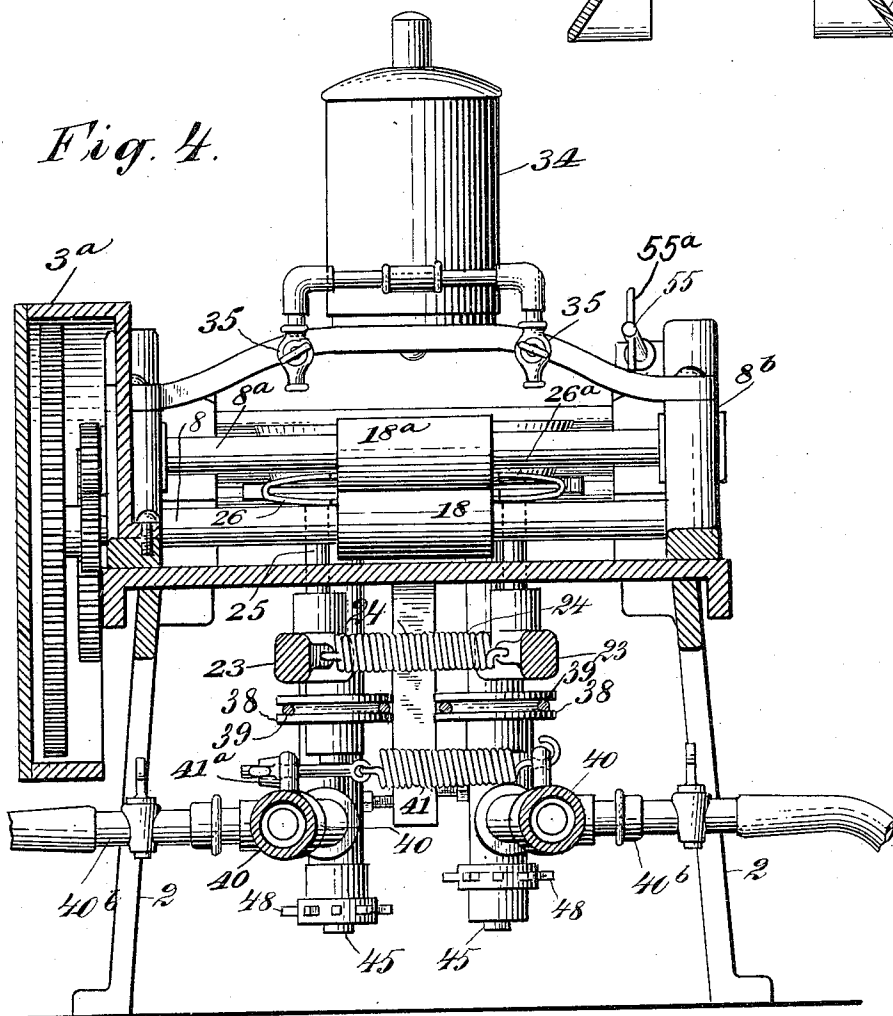


Fig. 4.



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5 SHEETS—SHEET 5.

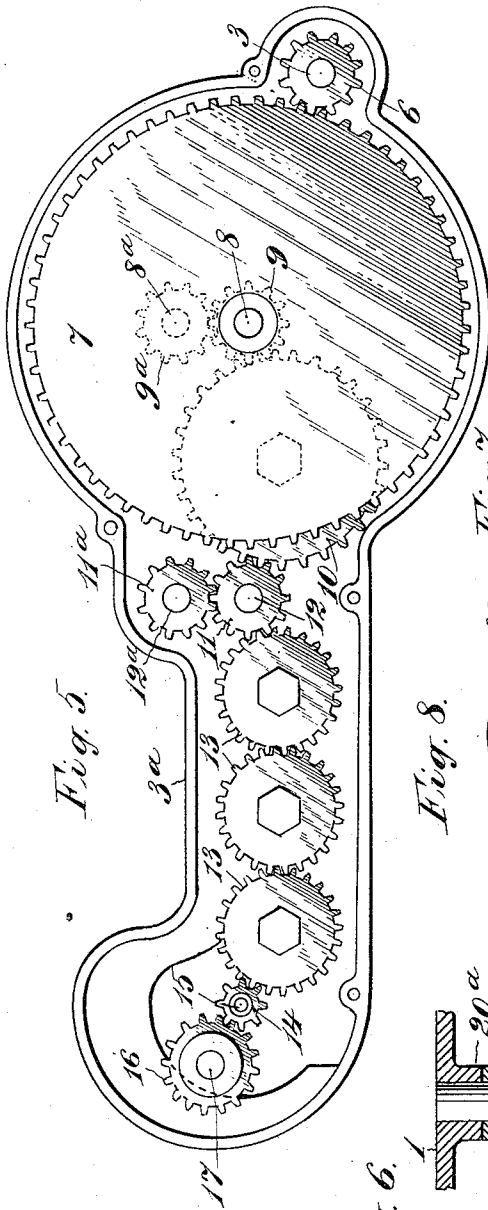


Fig. 5.

Fig. 8.

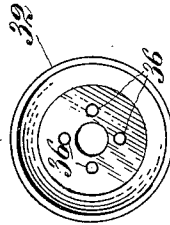


Fig. 7.

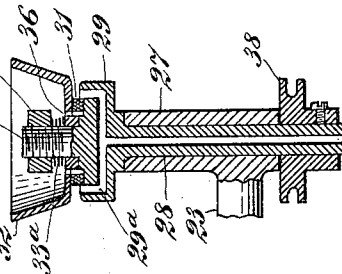
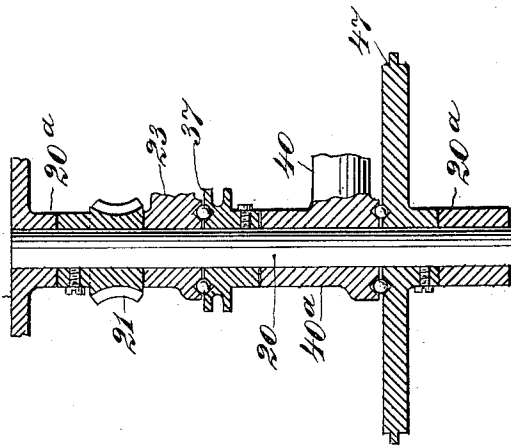


Fig. 9.



Fig. 6.



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UNITED STATES PATENT OFFICE.

LEWIS R. HEIM, OF DANBURY, CONNECTICUT.

AUTOMATIC EDGE-IRONER FOR COLLARS AND CUFFS.

1,064,644.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed March 28, 1907. Serial No. 364,979.

To all whom it may concern:

Be it known that I, LEWIS R. HEIM, a citizen of the United States, residing in Danbury, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Automatic Edge-Ironers for Collars and Cuffs, of which the following is a specification.

This invention relates to certain improvements in laundry machines and more particularly in that class of such mechanisms which are adapted for use in ironing collars, cuffs and the like, and the object of the invention is to provide a machine of this character of a simple and comparatively inexpensive nature and of a compact, strong and durable structure having improved means whereby a high degree of finish may be imparted to the work.

The invention consists in part in a machine of this general character having means for moistening and ironing the edge portions of the collars, cuffs or other work said ironing means being arranged to bear against such edge portions of the work in such fashion as to effectively smooth and finish the same whereby the rough edges commonly present upon the work, particularly when the collars, cuffs, etc. are much worn, are smoothed and rendered even and uniform.

The invention also contemplates certain novel features of the construction and combinations and arrangements of the several parts of the improved laundry machine, whereby certain important advantages are attained and the device is rendered simpler, cheaper and otherwise better adapted and more convenient for use, all as will be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claims.

In order that my improvements may be the better understood I have illustrated in the accompanying drawings a machine embodying my invention, in which drawings—

Figure 1 is a plan view of the improved machine the gear casing at one side thereof being broken away to show the inclosed gearing. Fig. 1^a is a detail view illustrating the locking device for the shaper. Fig. 2 is a sectional side elevation of the machine, the plane of the section being indicated by the line *a, a*, in Fig. 1. Fig. 3 is a sectional view taken horizontally through the machine in the plane indicated by the line *b b*, in Fig.

2. Fig. 4 is a sectional view taken vertically through the improved machine in the plane indicated by the line *c c*, in Fig. 2. Fig. 5 is a detail view showing the arrangement of gearing at the side of the machine for transmitting movement to the several operative parts thereof. Fig. 6 is a sectional detail view showing the means for transmitting movement to the rotatory moistening device. Fig. 7 is a sectional detail view showing certain details of construction of the moistening device to be hereinafter described. Fig. 8 is a plan view of one of the cups of the moistening device. Fig. 9 is a plan view of one of the moistening disks, together with the support thereof. Fig. 10 is a detail sectional view taken horizontally through the cam-like spreaders from which the moistening devices are actuated on passage of the work through the machine, and Fig. 11 is a fragmentary sectional view showing the delivery rolls of the machine adjusted to afford a plain or flat finish to the work.

In these views 1 represents the bed or table of the machine over which the work is fed, and 2 represents a supporting frame therefor of suitable construction.

3 is a drive shaft, extended transversely across the forward portion of the frame 2, being journaled in suitable bearings and provided at one end with a loose pulley 4, adapted to receive a belt or band by means of which the machine may be driven from a suitable source of power.

5 represents a clutch mechanism, of any approved kind for locking the shaft 3 to turn with the pulley 4.

At one side of the machine, the shaft 3 carries a gear pinion 6, meshing with a spur-gear wheel 7, upon a shaft 8 extended in bearings horizontally of the machine just below the level of the bed or table 1 and parallel to the shaft 3. The gears 6 and 7 together with certain other gearing for transmitting movement to various moving parts of the machine, are housed within a casing 3^a extended along one side of the machine as shown in Figs. 1, 2 and 4.

8^a represents another shaft, journaled in elastically depressed bearings 8^b, 8^b on the frame, in such position as to stand in position immediately above and parallel with shaft 8, and 9, 9^a represent intermeshing gear pinions on the adjacent end of the respective shafts 8 and 8^a and within the gear

casing 3^a, the arrangement being such that the movement of shaft 8 is communicated to shaft 8^a whereby the two shafts are driven in unison.

10 10 represents an idler pinion journaled on a stud in casing 3^a and meshing at one side with the pinion 9 on shaft 8 and at its opposite side with a pinion 11 upon a shaft 12, journaled in bearings in the frame beneath the bed or table 1 at the rear of and parallel to the shaft 8 from which it is driven through the interposed gearing above described.

15 12^a represents another shaft mounted in elastically depressed bearings 12^b, 12^b at the sides of the frame, said shaft being extended above and parallel with the shaft 12, and carrying a pinion 11^a in gear casing 3^a and meshing with pinion 11 on shaft 12 whereby said shafts 12 and 12^a are driven in unison and at the same speed.

20 13, 13, represents a train of gears within the gear casing 3^a, and meshing at one side with the pinion 11 on shaft 12, the opposite side of said train of gears being in mesh with a pinion 14 upon one end of a shaft 15, journaled in bearings at opposite sides of the machine frame, said shaft 15 being extended across said frame at the rear of and parallel to the shaft 12, from which said shaft 15 is driven, in the operation of the machine, through the medium of the train of gears 13, 13.

35 16 represents another gear pinion within the gear case 3^a, being mounted upon one end of a shaft 17 journaled in an auxiliary frame or yoke 51 at the delivery end of the machine and meshing with the pinion 14 on shaft 15. The auxiliary frame 51 has 40 arms pivotally supported upon the shaft 15 at opposite sides of the main frame of the machine in such a way as to permit of being swung pivotally thereon to afford certain adjustment of the parts without in any way 45 interfering with the transmission of movement from shaft 15 to said shaft 17 through the intermeshing gear pinions 14 and 16.

The functions of the several parts above referred to will be hereinafter pointed out.

50 On the shaft 8 at or near the central part of the machine is a metal bed-roller 18, on which bears a rubber surfaced roller 18^a carried by shaft 8^a, the bite of these rollers being substantially in alinement with the top surface of the feed table or bed 1, so that 55 the work passed over said table 1 will be gripped between said rollers and by them carried through the machine. In a similar way the shaft 12 carries a metal bed-roller 60 19 while the corresponding upper shaft 12^a carries a rubber faced roller 19^a bearing on the top surface of said metal roller, 19, the bite of said rollers 19 and 19^a being alined with the top surface of the bed or feed table 65 1 of the machine so that the work drawn be-

tween rollers 18, 18^a will be fed between the said rollers 19, 19^a and by them will be fed or drawn through the machine.

The forward and rear feed rollers 18, 18^a and 19, 19^a above described are suitably spaced apart to receive between them certain moistening or dampening devices which I will now describe. 70

20, 20 are shafts vertically extended beneath the bed or table 1 adjacent to the feed end of the machine, and at opposite sides of the frame 2, being journaled in suitable bearings 20^a, 20^a carried by the bed or table 1, as seen in Fig. 2, and 21, 21 represent worm-wheels held upon the upper end of said shafts 20, 20 and meshing with worms 22, 22 suitably mounted on shaft 3 within the supporting frame 2 of the machine. 75 80

23, 23 represent arms mounted for pivotal movement upon the shafts 20, 20 and extended rearwardly beneath the bed or table 1, their forward ends being tied or connected together by means of a spring 24, adjacent to the shafts 20, 20, while their rear ends have vertically extended sockets 23^a, 23^a wherein are received the lower ends of rods or stems 25 which are vertically extended above the arms 23, 23 and have their upper ends passed up through slotted openings 2^a, 2^a in the top of the supporting frame 2 in the space between the forward and rear feed rollers 18, 18^a and 19, 19^a. The upper ends of the rods or stems 25, carry cam like spreaders 26, 26, herein shown as formed from sheet metal, bent into shape to receive the opposite edge portions of the collar, cuff or other work being passed through the machine, and having inclined or beveled surfaces 26^a, 26^a to be engaged by said opposite edge portions of the work, in such manner that said work operates to force the spreaders 26, 26, apart, together with the arms 23, 23, whereon the spreaders are carried. 85 90 95 100 105

The arms 23, 23 have at their rear extremities, behind the stems or rods 25, 25, vertically extended bearings 27, 27, wherein are mounted to turn the lower ends of vertically extended shafts 28, 28, the upper ends of which have heads or collars 29, 29, and are arranged to pass through slotted openings in the top of the machine frame 2. Upon the upper faces of the heads or collars 29, 29, are screw studs 30, 30, as seen in the detail views, Figs. 7 and 9, disk like moistener pads 31, 31, of felt or similar absorbent material being held upon said screw studs beneath cups 32, 32. The studs 30, 30, receive nuts 33, 33, upon their upper ends, springs 33^a being interposed between said nuts and the bottoms of said cups 32, so that the cups are pressed downward with suitably regulated tension upon the disk like moistener pads 31. 110 115 120 125

The cups 32, 32 receive water from an elevated tank or holder 34 mounted on the 130

frame and provided with discharge cocks 35, 35, located above the respective cups, in such a way that the supply of water thereto may be effectively regulated, and in the bottoms of said cups 32, 32 are apertures 36, communicating with similar apertures in the felt moistening pads 31 which are thereby kept properly moistened by the water supplied from the tank 34 to cups 32, 32. Any surplus of water supplied to the pads 31, 31, is collected in annular chambers 29^a 29^a, produced in the heads or collars and is thence discharged through the hollows or bores of shafts 28 at the base of the machine so as to prevent damage to the work passing through the device.

The shafts 28, 28 are driven from the respective shafts 20, 20 by means of suitable gearing, which, as herein shown, comprises sheaves 37, 37 on the shafts 20, 20, other sheaves 38, 38, on the lower ends of the shafts 28, 28, and endless belts or bands 39, 39, extended lengthwise along the arms 23, 23, and connecting the sheaves 37 and 38 at opposite ends of each arm to turn in unison.

By the structure so far as described, it will be evident that the work fed into the machine over the work-table 1 will be gripped in the bite of the forward feed rollers 18, 18^a and will be by them passed across the space intervening between the said rollers and the rear rollers 19, 19^a, and presented to the bite of the latter so as to be in turn gripped by said last-named feed rollers and further fed through the machine.

In the movement of the work across the space intervening between the two sets of feed rollers 18, 18^a and 19, 19^a, the corners at the forward edge portion of the work will come in contact with the beveled or inclined faces 26^a, 26^a of the respective cam like spreaders 26, 26, and will operate, under the impulse of the feed, to force the said spreaders outwardly and apart from each other, whereby the arms 23, 23 will be swung away from each other at their pivotal connections with shafts 20, 20, against the tension of spring 24, so that the moistening devices comprising pads 31, 31 and their supporting means and supply cups will be so separated as to permit the opposite lateral edges of the work to readily pass between the said moistening devices, and in intimate contact with the pads 31, 31 so as to be effectively moistened or dampened thereby.

The pads 31, 31 are, as herein shown, of less diameter than the adjacent parts of the corresponding supporting heads 29 and cups 32, whereby it will be seen that an annular groove is produced around each of the moistening devices to conveniently receive and guide the lateral edge portion of the work into close contact with the peripheral or edge surface of the interposed moistening pad or disk 31, which surface is, of course

extended vertically to the plane in which the work travels through the machine, to insure effective contact of the edge of the work on said pad. The said pads or disks 31, will, by preference, be driven at speeds corresponding with that at which the work is fed through the machine, so as to lessen wear upon said pads or disks.

Beyond the second pair of feed rollers 19, 19^a are arranged means for ironing or burnishing the moistened lateral edges of the work prior to the delivery of the same at the rear end of the machine, and said ironing or burnishing means comprises auxiliary arms 40, 40, having at their forward ends vertically extended bearings 40^a, 40^a held for pivotal movement upon the lower ends of the vertical shafts 20, 20, and tied or connected so as to be elastically drawn toward each other by means of a spring 41, the tension of which is adjustable by means of a nut 41^a at one of its ends.

The arms 40, 40 are similar to the arms 23, 23 in arrangement and operation, but are located beneath, and are of greater length than the said arms 23, 23, and their rear end portions have sockets at their upper sides wherein are held the lower ends of upright stems or rods 42, 42, the upper ends of which are extended through a transverse opening in the top of the machine frame and carry cam-like spreaders 43, 43, similar in construction and operation to the spreaders 26, 26, above described, and adapted for engagement by the work as it emerges at the rear of the bite of the feed rollers 19, 19^a in such a way that said spreaders, 43, 43, together with the arms 40, 40, whereon they are supported, are pressed apart from each other against the tension of spring 41.

The rear extremities of the arms 40, 40 have bearings 46, 46, beyond the stems 42, 42, and in said bearings are held to turn vertically extended shafts 45, 45, having collars rested on the upper ends of bearings 46, so that the upper ends of said shafts are supported in upright positions above the arms 40, and are adapted to play, in the pivotal movement of said arms, along the opposite lateral portions of the transverse opening in the machine frame through which the stems 42, are extended, and said upper ends of the shafts 45, 45, carry burnishers or ironers 44, herein shown as made in the form of metal disks or rollers, with perimetral grooves 44^a adapted, when the arms 40, 40, are separated by engagement of the forward part of the work with spreaders 42, 42, to receive the lateral edge portions of said work in order that the same may be smoothed and ironed by the circumferential surfaces at the bases of said grooves 44^a as will be readily understood. In order to insure a proper finish of said edge portions of the work when being operated upon by the

burnishing or ironing disks or rollers 44, 44, it is desirable to provide means for heating said disks or rollers, and herein I have shown such heating means comprising gas burner tips 50, 50, mounted on the arms 40, 40 and arranged to direct jets or flames upon the under surfaces of the respective disks or rollers 44, 44, the said tips receiving their supply of gas from bores or passages produced in the arms 40, 40, and to which the gas is supplied, adjacent to the pivotally mounted ends of said arms, by way of gas connections 40^b, 40^b, having controlling cocks and adapted for connection by means of flexible tubing, in a well known way, with a suitable source of gas supply. It is also desirable that the ironing or burnishing disks 44, 44, shall be forwardly driven at a speed greater than that at which the work is fed through the machine, to insure the desirable finish of the edges of the work, and to accomplish this result, I provide gearing comprising large driving sprockets 47, 47, mounted on the lower ends of the vertical shafts 20, 20, smaller sprockets 48, 48, on shafts 45, 45, and endless sprocket chains 49, 49, extended lengthwise of the arms 40, 40, for driving each shaft 45, from the corresponding shaft 20 but at a speed sufficiently increased to insure proper operation of the burnishers or ironers 44, 44 upon the work. After passing the burnishers or ironers 44, 44, the work is finished in so far as concerns the smoothing of the edge surfaces thereof, but since it is desirable to deliver the work from the machine in either flat or bent or curved form, I have provided the improved machine herein shown with means for accomplishing either of these results at will by a simple adjustment. Such means comprises the auxiliary frame or yoke 51, mounted for pivotal movement upon the driven shaft 15 at the delivery end of the machine, and carrying the driven shaft 17, above referred to, said frame being adapted for adjustment to either the position shown in Fig. 2 or that shown in Fig. 11, accordingly as it may be desirable to deliver the work in a bent or curved form or in a flat form.

Between the arms of the yoke or auxiliary frame 51, the shaft 15, which is at the lower side of the horizontal path traversed by the work after leaving the feed rollers 19, 19^a, is formed into a roll upon the upper face of which said work is adapted to be guided and directed by a suitable guide plate 54, extended across the machine, and the corresponding portion of the shaft 17 is provided with a rubber faced roller 52, bearing upon the upper face of said roll-like part of shaft 15 so that the work delivered upon the upper face of said shaft 15 is adapted to be gripped in the bite between the shaft 15 and roller 52, and thereby carried on and dis-

charged from the machine. The shaft 17 is preferably mounted in elastically depressed bearings in the arms of the yoke or auxiliary frame 51.

53 represents a rod or roller extended transversely across the space between the arms of the yoke or auxiliary frame 51, parallel to shaft 15 and adapted, when said yoke or frame 51 is in one adjusted position (as seen in Fig. 2) to extend above the plane in which the work is fed through the machine, and when said yoke or frame 51 is in its other adjusted position, (as shown in Fig. 11), to stand below the plane in which the work is fed through the machine, the eccentric mounting of said rod or roller 53 with reference to shaft 15 serving to insure proper adjustment of the same when the frame or yoke 51 is adjusted. When said yoke or frame 51 is adjusted to the position shown in Fig. 2, the work fed through the machine will be passed between the roller or rod 53 and shaft 15 and upon being gripped in the bite of shaft 15 and roller 52 will be bent across the top of said shaft 15 so that upon being discharged from the machine, the proper curved or bent form will be imparted to the work as indicated at *c* in Fig. 2.

58 represents a curved guide plate located at the delivery end of the machine and whereon the discharged work is adapted to contact in such fashion that the work is prevented from being soiled by contact with the operative portions of the machine or its frame.

When the frame or yoke 51 is adjusted to the upright position shown in Fig. 11, with the eccentric rod or roller 53 below the path of the work, it is evident that the work after passing through between rollers 19, 19^a will be presented in flat form to the bite of the shaft 15 and roller 52 so as to be passed between said parts and discharged from the machine in flat form as shown at *c'* in said Fig. 11.

In order that the attendant may conveniently operate the frame or yoke 51 to move it pivotally to the desired adjustment, I provide an operating rod 55, connected with said yoke 51 at one side of the machine frame and extended thence forward to the feed end of the machine where it is provided with a handle 55^a. The rod 55 is guided by any suitable means, such as the notched lug 57, stop collars 56, 56^a on said rod cooperating with said lug to hold the rod 55 and yoke 51 actuated therefrom in their several adjusted positions. When it is desired to change the adjustment of the delivery rolls it is therefore only necessary to lift rod 55 out of the notch of lug 57 and to move the rod endwise to suitably adjust the yoke 51, after which the rod being again dropped into the notch of lug 57, the corresponding

stop collar 56 or 56^a will hold the parts in adjusted position.

From the above description of my invention it will be obvious that the improved machine embodying my improvements is of an extremely simple and comparatively inexpensive construction and is especially well adapted for use in finishing collars, cuffs and similar work where it is desirable to insure smooth or burnished edge surfaces. The arrangement of the moistening means and burnishing devices for swinging movement in a horizontal plane also affords a very desirable construction, since the moistening and burnishing or ironing means are made much more sensitive and are permitted to accommodate themselves to the edges of the work in a manner not possible where said means are otherwise arranged. By this arrangement also, the collection of water at the moistening devices when the machine is idle and whereby upon afterward starting up the machine, the work is apt to be damaged, is altogether prevented, and it is rendered possible to conduct away any excess of water supplied to the moistening means, so that the rolls and other parts of the machine are prevented from becoming wet and soiling the work.

It will also be obvious from the above description, that the device is susceptible of some modification without material departure from the principles and spirit of the invention, and for this reason I do not desire to be understood as limiting myself to the precise form and arrangement of the several parts as herein set forth in carrying out my invention in practice.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A machine of the character described comprising a frame, feeding mechanism, rearwardly converging arms pivotally supported by said frame and provided with upright rods, moistening devices carried by said arms, means for normally bringing the free ends of said arms together, means carried by said upright rods for separating said moistening devices, and means for ironing the work after it leaves said moistening devices.

2. A machine of the character described comprising a frame, feeding mechanism, rearwardly converging arms pivotally supported by said frame and provided with upright rods, shafts rotatably mounted in said arms, moistening devices carried by said shafts, said shafts being provided with means for carrying off surplus moisture, means for normally bringing the free ends of said arms together, means carried by said upright rods for separating said moistening devices, and means for ironing the work after it leaves said moistening devices.

3. A machine of the character described comprising a frame, feeding mechanism, rearwardly converging arms pivotally supported by said frame and provided with upright rods, shafts rotatably mounted in said arms and provided with enlarged heads, moistening devices carried by said shafts, said heads and said shafts being provided with means for carrying off surplus moisture, means for normally bringing the free ends of said arms together, means carried by said upright rods for separating said moistening devices, and means for ironing the work after it leaves said moistening devices.

4. A machine of the character described comprising a frame, feeding mechanism, rearwardly converging arms pivotally supported by said frame and provided with upright rods, shafts rotatably mounted in said arms, moistening devices carried by said shafts, means for normally bringing the free ends of said arms together, means carried by said upright rods for separating said moistening devices, and means for ironing the work after it leaves said moistening devices.

5. A machine of the character described comprising a frame, feeding mechanism, rearwardly converging arms pivotally supported by said frame and having sockets provided with upright rods, shafts rotatably mounted in said arms and provided with reduced portions, moistening devices mounted on said reduced portions, means for normally bringing the free ends of said arms together, means carried by said upright rods for separating said moistening devices, and means for ironing the work after it leaves said moistening devices.

6. A machine of the character described comprising a frame, feeding mechanism, rearwardly converging arms pivotally supported by said frame and provided with upright rods, moistening devices carried by said arms, receptacles beneath and movable in unison with the moistening devices and arranged to receive the excess of liquid supplied to said moistening devices, means for normally bringing the free ends of said arms together, means carried by said upright rods for separating said moistening devices, and means for ironing the work after it leaves said moistening devices.

7. A machine of the character described comprising a frame, feeding mechanism, rearwardly converging arms pivotally supported by said frame and provided with upright rods, moistening devices carried by said arms, means for normally bringing the free ends of said arms together, spreader guides carried by said upright rods for separating said moistening devices, and means for ironing the work after it leaves said moistening devices.

8. A machine of the character described comprising means for feeding work through the machine, a moistening device movable transversely in a horizontal plane, said moistening device being adapted to contact with an edge of the work passed through the machine, means for supplying liquid to the moistening device, a spreading device connected with said moistening device for moving the latter, a receptacle beneath and movable in unison with the moistening device, and arranged to receive any excess of liquid supplied to said moistening device, and means for ironing the work after it leaves the moistening device.

9. A machine of the character described comprising a frame, feeding mechanism, rearwardly converging arms pivotally supported by said frame and provided with upright rods, ironing devices carried by said arms, means for normally bringing the free ends of said arms together, means carried by said upright rods for separating said ironing devices, and means for moistening the work before it reaches said ironing devices.

10. A machine of the character described comprising a frame, feeding mechanism, rearwardly converging arms pivotally supported by said frame and provided with upright rods, ironing devices carried by said arms, means for normally bringing the free ends of said arms together, spreader guides carried by said upright rods, and means for moistening the work before it reaches said ironing devices.

11. A machine of the character described comprising a frame, shafts mounted therein, arms pivotally mounted on said shafts and provided with moistening devices, longer arms also pivotally mounted on the same shafts, and provided with ironing devices, means for feeding the work to said moistening and ironing devices, and means operated by the work for separating said devices.

12. A machine of the character described comprising a frame, shafts mounted therein, arms pivotally mounted on said shafts and provided with moistening devices, longer arms also pivotally mounted on the same shafts and provided with ironing devices, means for feeding the work to said moistening and ironing devices, means operated by the work for separating said devices, means for rotating said shafts, and means operated by the shafts for rotating said moistening and said ironing devices.

13. A machine of the character described comprising a frame, shafts mounted therein, arms pivotally mounted on said shafts and provided with moistening devices, longer arms also pivotally mounted on the same shafts and provided with ironing devices, means for feeding the work to said moistening and ironing devices, upright rods car-

ried by the arms supporting the moistening devices, similar upright rods carried by the arms supporting the ironing devices, and means carried by said upright rods for respectively separating said moistening devices and said ironing devices.

14. A machine of the character described comprising a frame, shafts mounted therein, arms pivotally mounted on said shafts and provided with moistening devices, longer arms also pivotally mounted on the same shafts and provided with ironing devices, means for feeding the work to said moistening and ironing devices, upright rods carried by the arms supporting the moistening devices, similar upright rods carried by the arms supporting the ironing devices, means carried by said upright rods for respectively separating said moistening devices and said ironing devices, means for rotating said shafts, and means operated by the shafts for rotating said moistening and said ironing devices.

15. A machine of the character described comprising a frame, feeding mechanism, rearwardly converging arms pivotally supported by said frame and provided with upright rods, ironing devices carried by said arms, means for normally bringing the free ends of said arms together, means carried by said upright rods for separating said ironing devices, means for moistening the work before it reaches said ironing devices, and means carried by said arms for heating said ironing devices.

16. A machine of the character described comprising a frame, feeding mechanism, rearwardly converging arms pivotally supported by said frame and provided with upright rods, the said arms being hollow, means for supplying gas to said arms, ironing devices carried by said arms, burners leading from said arms to said ironing devices, means for normally bringing the free ends of said arms together, means carried by said upright rods for separating said ironing devices, and means for moistening the work before it reaches said ironing devices.

17. A machine of the character described comprising a frame, feeding mechanism, arms pivotally supported by said frame, shafts supported by said arms, moistening pads carried by said shafts, cup-like guides carried by said shafts and having perforated bottom walls resting upon said pads, means for supplying liquid to said cup like guides and means for ironing the work after it leaves said moistening pads.

18. A machine of the character described comprising a frame, feeding mechanism, arms pivotally supported by said frame, shafts supported by said arms, moistening pads carried by said shafts, perforated receptacles carried by said shafts and resting

upon said pads, means for supplying liquid to said receptacles, said shafts being each provided with a longitudinal bore for carrying away excess moisture and also with means 5 for directing said excess moisture to said bore, and means for ironing the work after it leaves said moistening pads.

19. A machine of the character described comprising means for feeding work through 10 the machine, a moistening device movable transversely in a horizontal plane and adapted for contact on an edge of the work passed through the machine, means to supply liquid to the moistening device, means 15 operated by the passage of work for moving

the moistening device, and a receptacle beneath and movable in unison with the moistening device and arranged to receive an excess of liquid supplied to said moistening device, and ironing devices for acting on 20 the work subsequently to the moistening of the latter.

In witness whereof I have hereunto signed my name this 13 day of March 1907, in the presence of two subscribing witnesses.

LEWIS R. HEIM.

Witnesses:

SOL. MAYER,

ROBERT S. ALEXANDER.

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