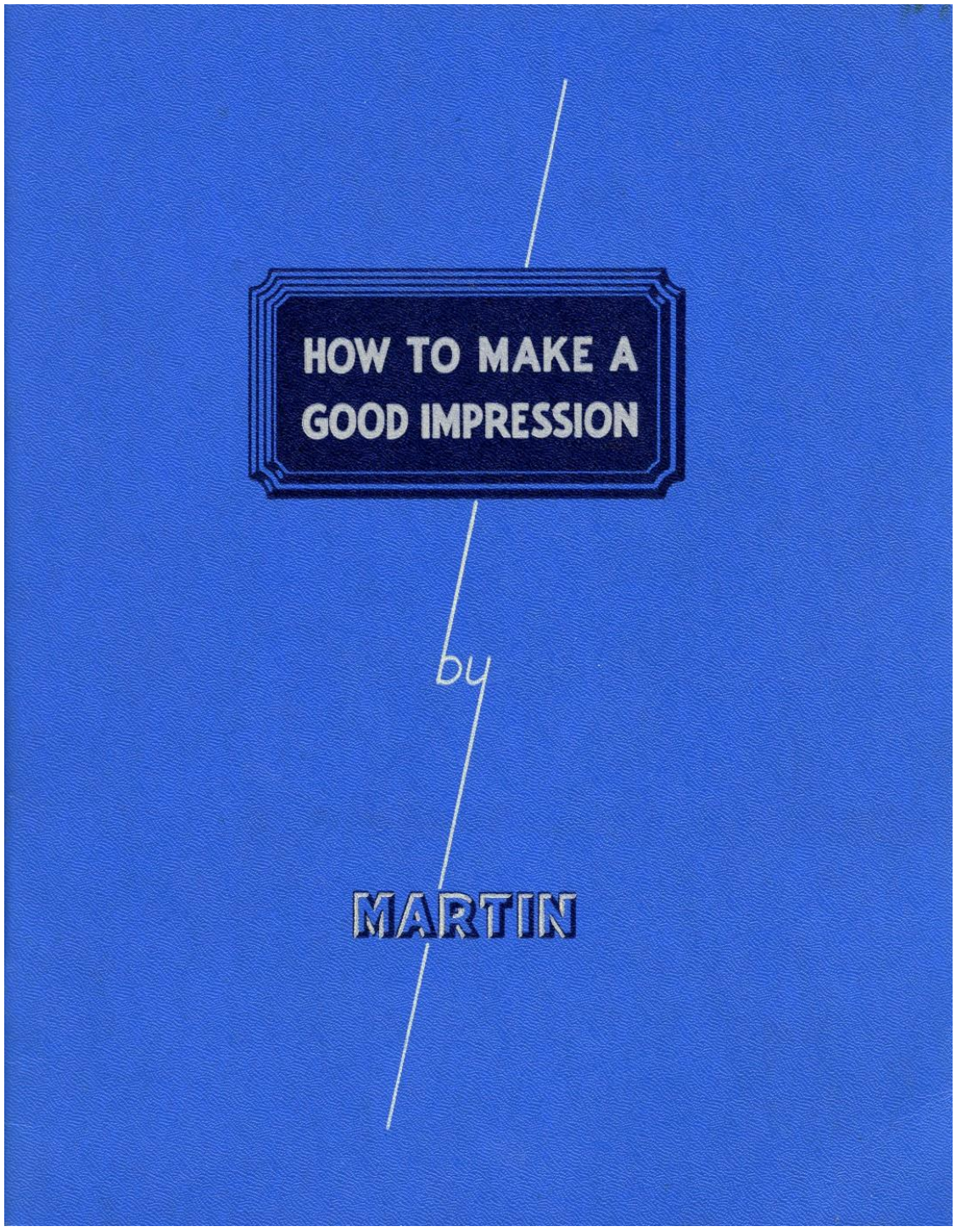
MARTIN MACHINE CO. Catalog for 1940.

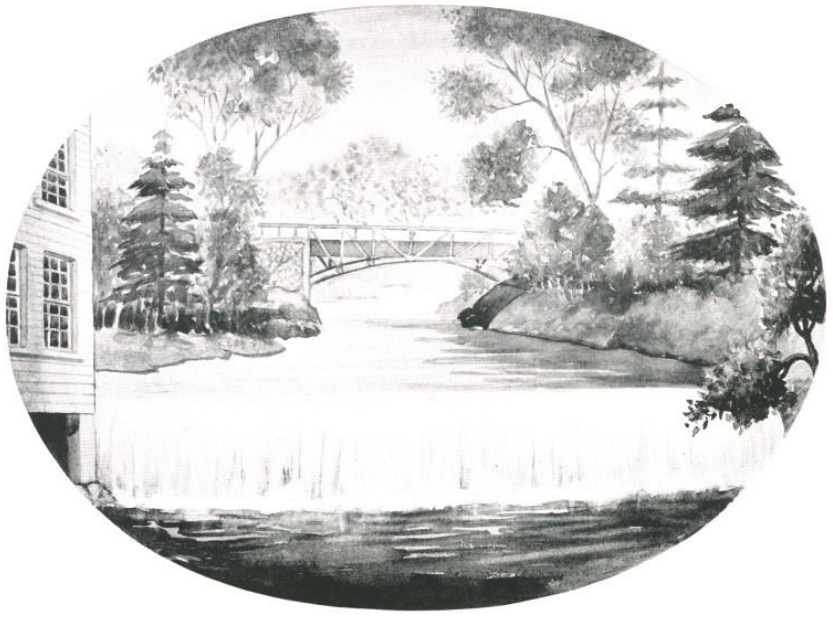


FOREWORD

THE contents of this booklet are offered as a helping hand to the progressive manufacturer who is continually striving to better his products. . . . A poor impression of a name or trade-mark placed upon a tool or article gives the would-be buyer a bad opinion of the article he is contemplating purchasing.

"A tool worth marking at all is certainly worth marking well."

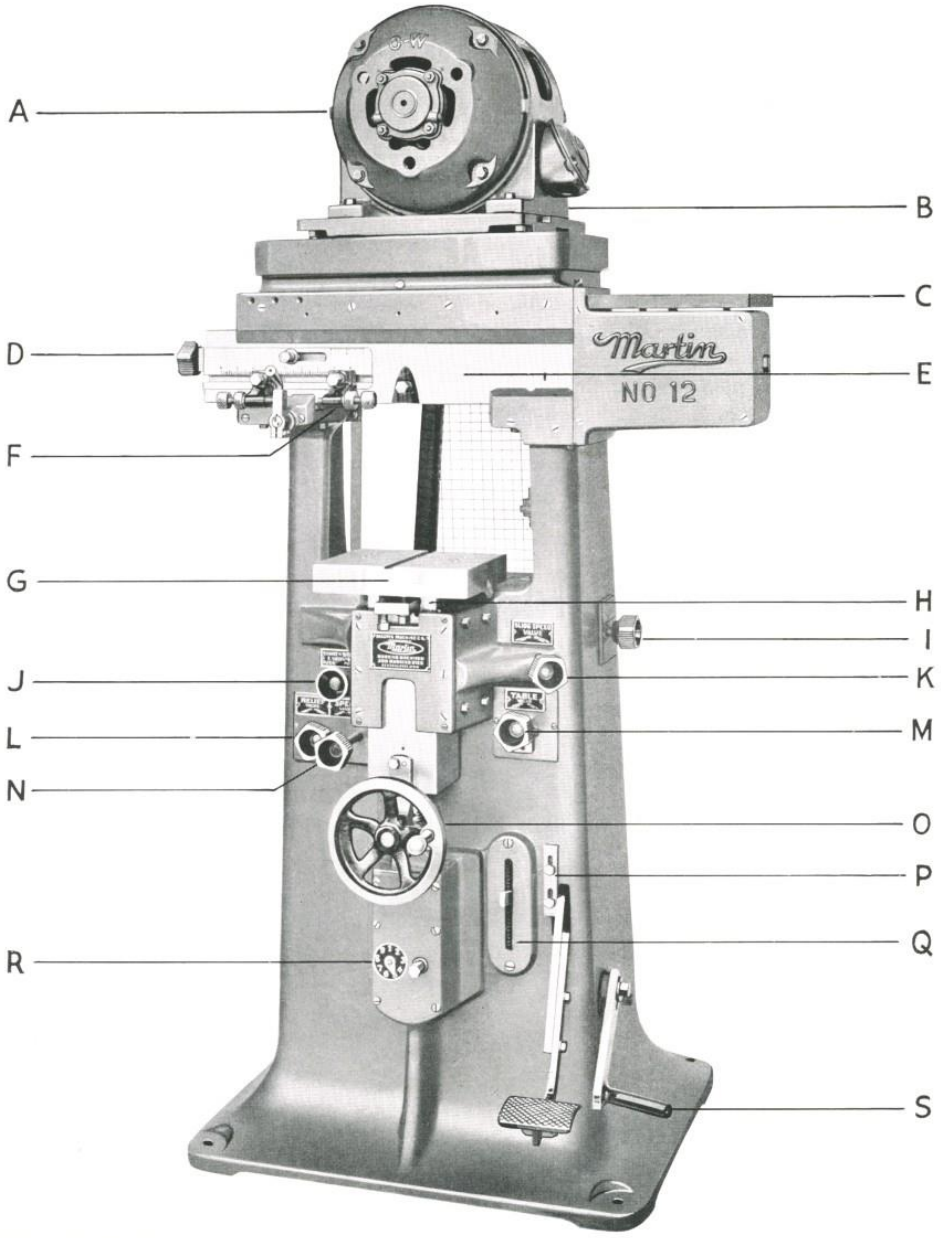
MARTIN MACHINE COMPANY, INC.
MONTAGUE, MASS., U. S. A.



BRIEF HISTORY

The Martin Machine Company has been manufacturing Marking Machines and Marking Dies for the past thirty years, and is now located in a little town situated on the bank of a small river that provides power, lights, and heat at almost no cost, which enables us to offer our customers more for their investment. In these years we have introduced many new timesaving marking devices to manufacturers in all parts of the world.

UNIVERSAL Martin HYDRAULIC



FRONT VIEW—All controls are within easy reach of the operator

WILL MARK ON BOTH ROUND

UNIVERSAL Martin HYDRAULIC

A Any standard 3 H.P., 1150 rev. motor is suitable.

B Adjustable motor platform.

C Tool tray for wrenches, etc.

D This handle is for adjusting the position of the impression on the work after the correct length of stroke is set by the stops. In other words, if the operator should require the impression a little to the right or left, this can be accomplished by turning the knurled handle. This eliminates throwing the correct length of stroke out of adjustment after it is once set.

E SLIDE of machine.

F Adjustable stops for governing the length of stroke of the slide.

G Table of the machine on which fixtures are bolted to place the work to be marked.

H Adjustment to tilt table in order to have surface of work to be marked line up parallel with impression on die.

I Slide valve to create back pressure when needed.

J Start and stop valve is used when setting up work when the slide has to be stopped quickly at certain points along the stroke of the slide.

K Speed valve for return stroke of slide. (Note: Not standard equipment.) It adjusts the return speed of the slide and is used when the machine is operated continuously, so the operator can catch every stroke.

L Relief valve to set total pressure of the machine.

M Table valve is used to increase or decrease the pressure on the table.

N Speed valve is to increase or decrease the speed of the machine.

O Handwheel for adjustment of the table.

P Safety lock so foot treadle will not lock in and keep machine repeating continuously.

Q Table stroke adjustment is used to increase or decrease the length of stroke of the table. It cuts off the stroke length from the bottom and does not affect the upward stroke.

R Fulcrum is for adjustment of the eccentric for light or heavy marking.

S Foot rest can be adjusted to the comfort of the operator.

T Three standard belts are used from motor to pump, which not only makes a satisfactory drive but also acts as a safety arrangement, which eliminates the chance of harming the motor if the machine should become jammed, which a marking machine is subject to quite often.

U Belt guard.

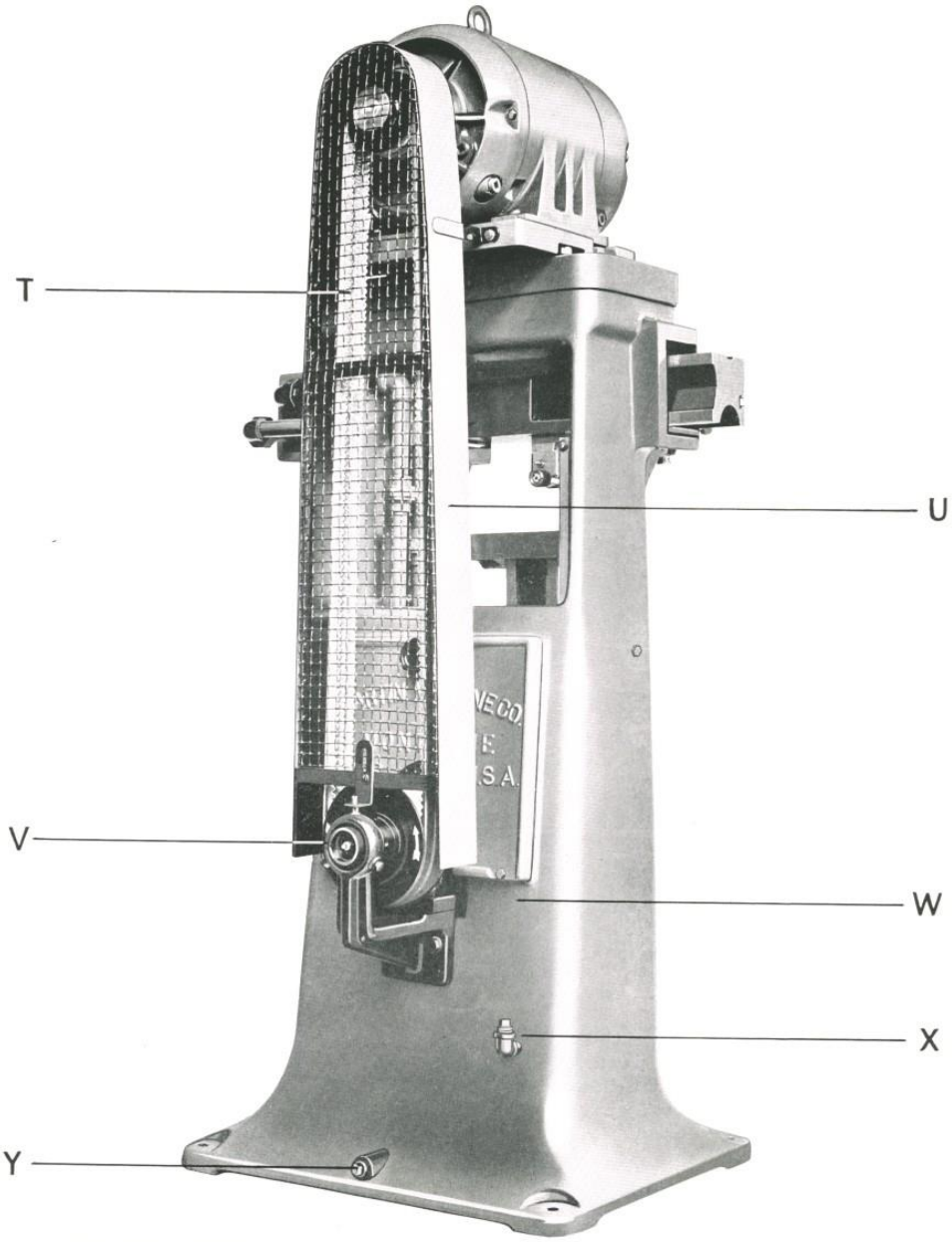
V Outer bearing of pump is of the roller type.

W Pump is equipped with roller bearings throughout and has take-up adjustments for wear of the gears.

X Gauge for height of oil in base.

Y Drain plug.

THIS MACHINE IS VERY



BACK VIEW—Showing V-Belt Drive and Belt Guard

SPECIFICATIONS

OF THE STANDARD NO. 12 HYDRAULIC MARKING MACHINE

Travel of Slide — 1/8 inch to 6 1/2 inches.

Adjustment of Table — 4 inches.

Distance between Table and Slide when Table is way down — 9 inches.

Opening between uprights — 12 1/2 inches wide x 11 inches high.

Height of Machine without Motor and Motor Base — 52 inches.

Height of Machine with Motor and Motor Base — 66 inches.

Bottom or Base of Machine is 27 inches along the front and 23 inches from front to back.

Weight of Machine crated without Motor — 1375 lbs. (Note: Motor shipped in separate crate.)

Weight of 3 H.P. Motor crated — 225 lbs.

Outside size of Crate — 32 inches wide, 36 inches long, 58 inches high.

Boxed for Ocean Shipment, outside size of Box — 36 x 36 x 58 inches or 43 cubic feet.

Weight complete Boxed — 1725 lbs.

Size and Style of Motor recommended — 3 H.P., 1150 rev., any standard Motor.

Size of Hole in Slide for Die Holders is 1 1/4 inches diameter, 1 5/8 inches long, and has 1/4 inch Key to fit 1/4 inch Slot in end of Shank.

SIZES OF STANDARD DIE HOLDERS

Standard Circular Die Holder will take round Dies up to 3 inches diameter.

Size of Shaft is 5/8 inch.

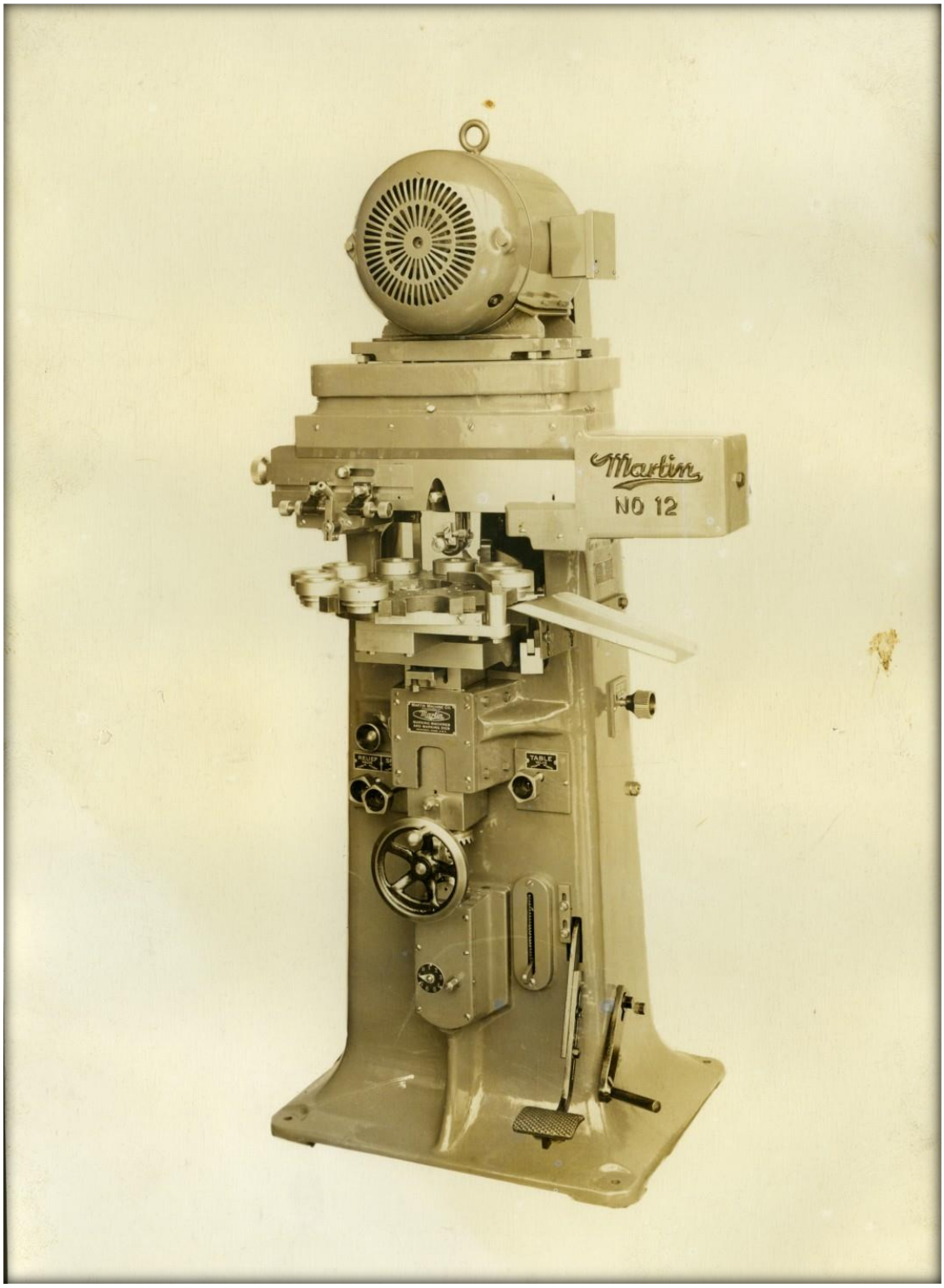
Size of Key is 3/32 inch.

Width of Opening for Die is 3/4 inch.

Standard Holders can be furnished with either round or dovetail Shanks.

Standard Flat Die Holders have opening for flat Dies 1 1/2 x 3/4 inches, and to accommodate flat Dies 1 inch high. Can be furnished with either round or dovetail Shanks.

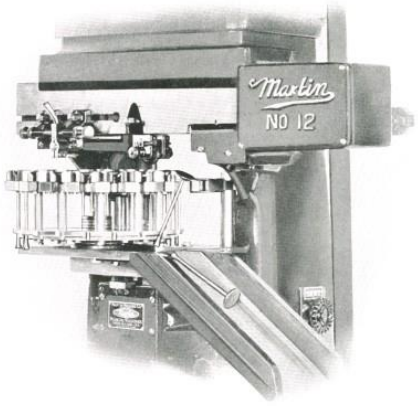
Special Die Holders can be furnished to fit individual requirements.

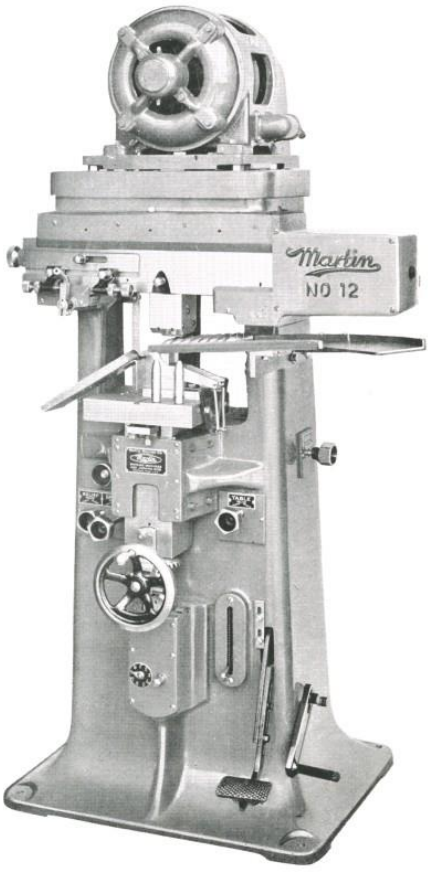


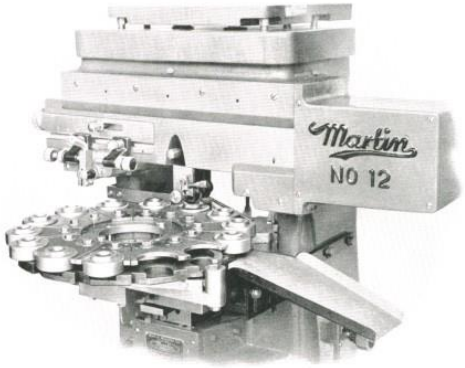
No. 12 with multi-station turret

UNIVERSAL Martin HYDRAULIC

Marking oval shaped automobile valves at 4000 per hour, using disc type feeding fixture.







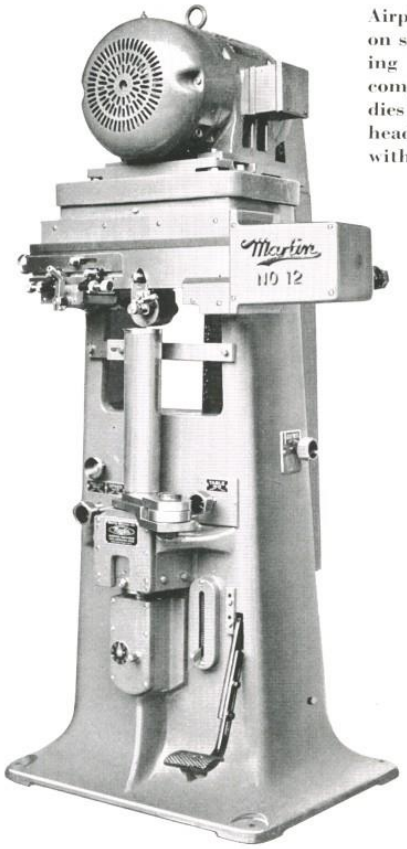
Automobile gear blanks are marked at high speed, using disc style fixture.

20 m/m shells are marked 3600 per hour, using chute type feeding fixture with very few moving parts. The shells are placed on projecting chute and machine does the rest.

PRODUCTION IS HIGH

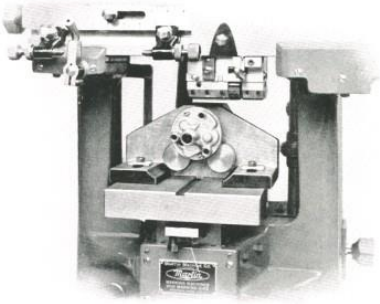
Various production fixturing.

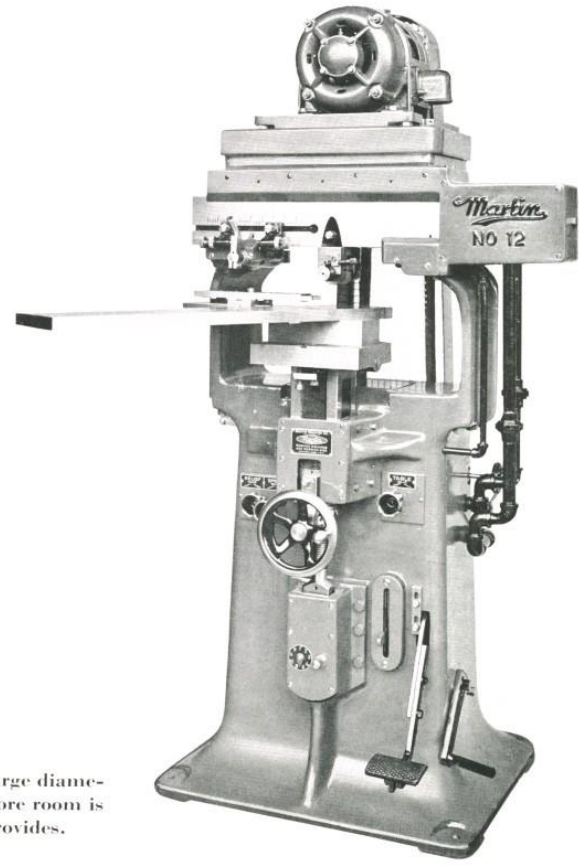
MARKING Martin MACHINES



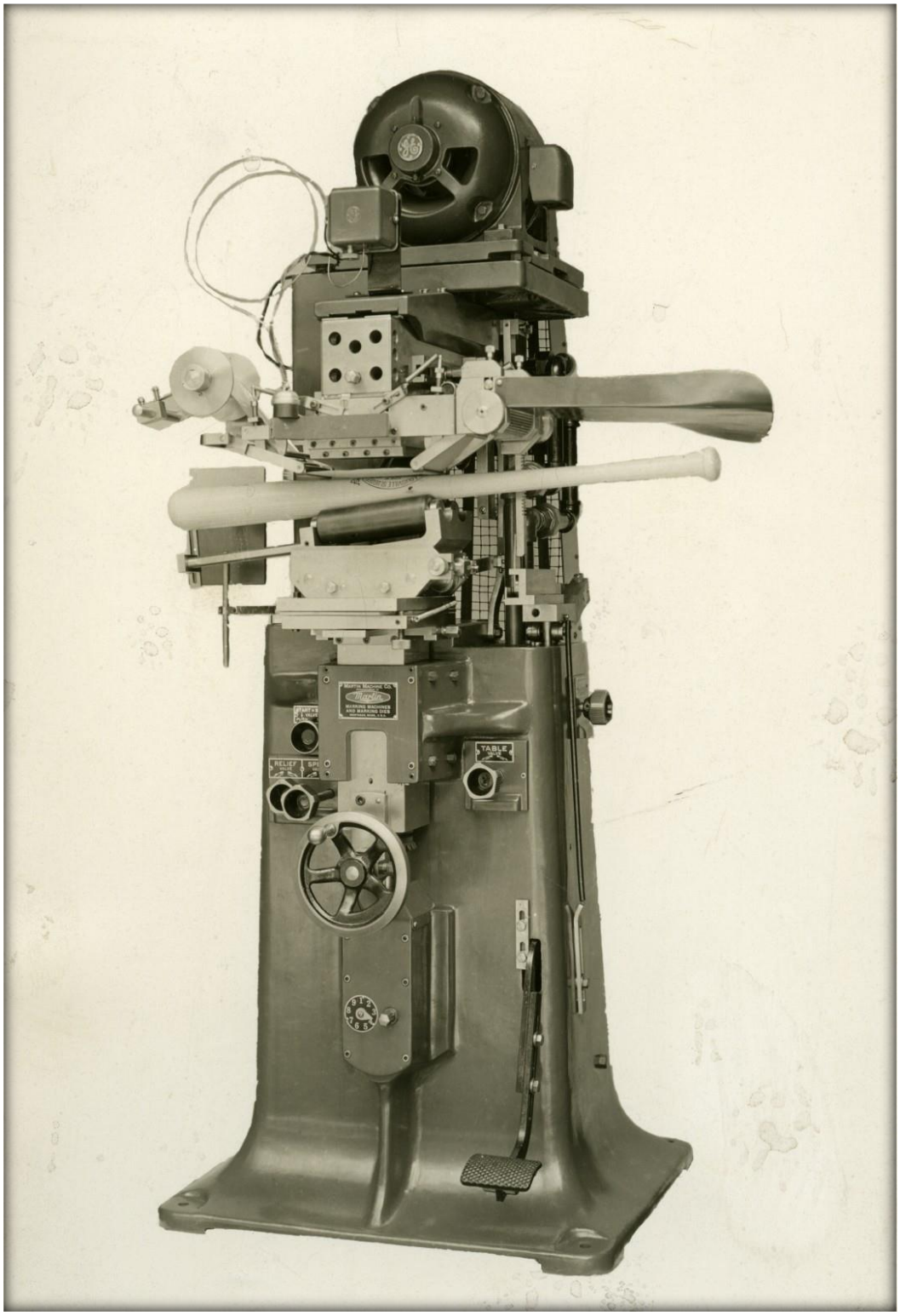
Cartridge cases can be marked on the end by using a swinging plug style fixture.

Airplane parts marked on stud type fixture, using a combination die composed of two solid dies and a numbering head, each part marked with a different number.

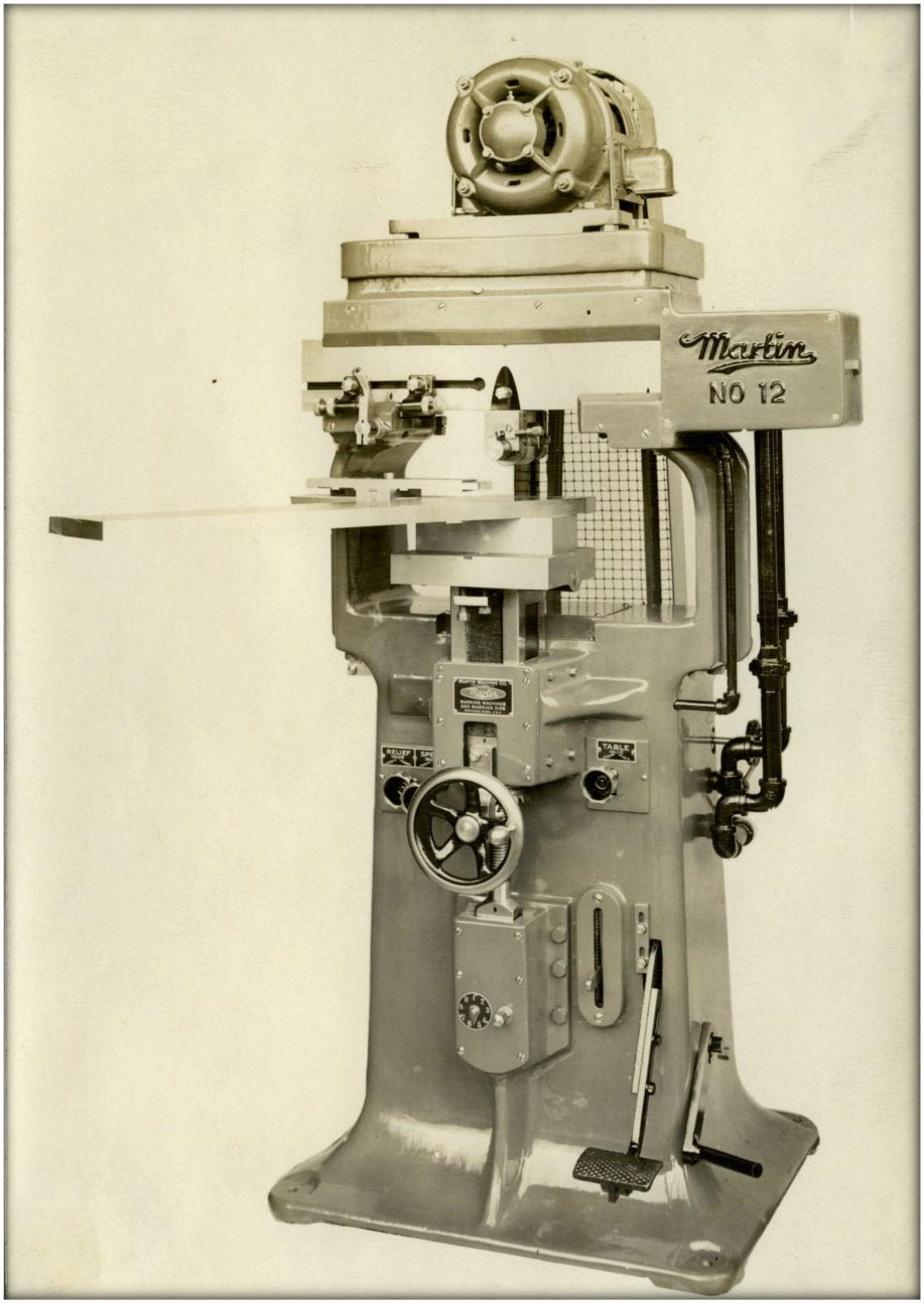




This wide throat machine is for marking large diameter articles like pulley gears, etc., where more room is required than our standard machine provides.



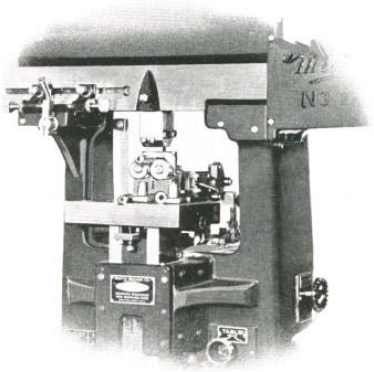
Baseball bat stamping fixture.

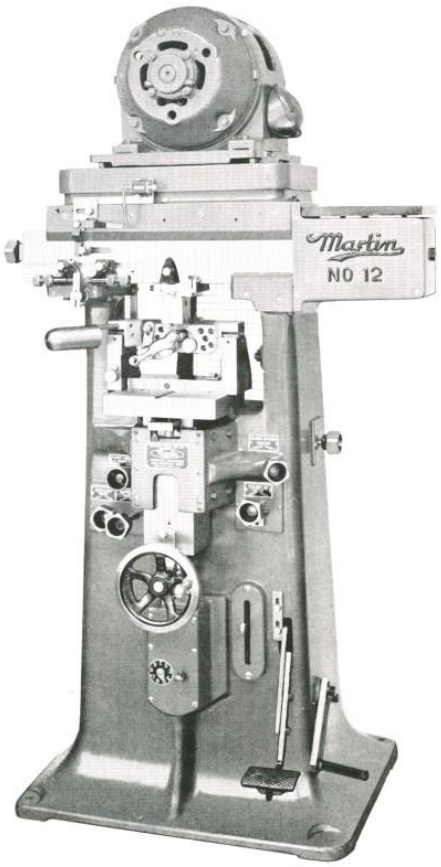


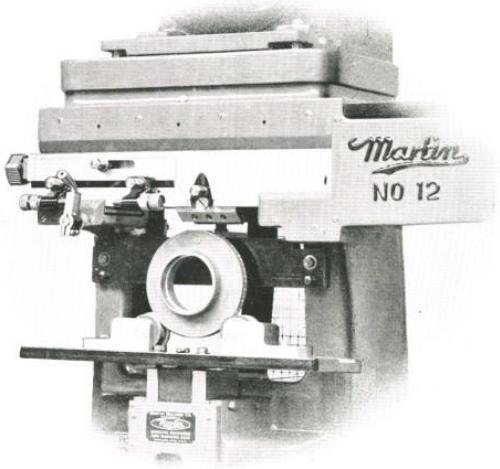
With table extension.

UNIVERSAL Martin HYDRAULIC

Marking ferrules, using single stud type fixture with automatic ejector. The single stud surpasses the multiple stud type for obtaining uniform impressions, speed, and low cost of maintenance.



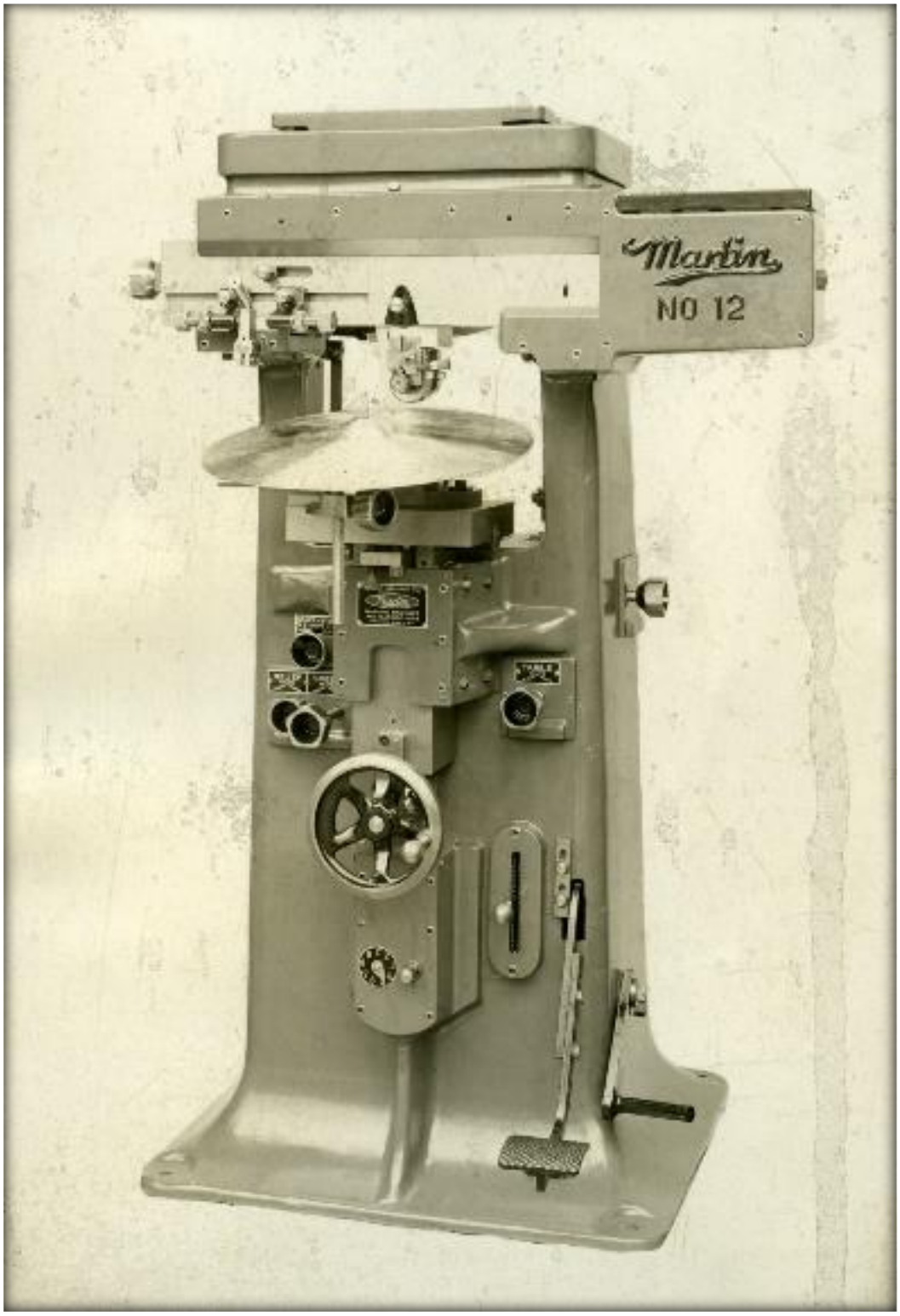




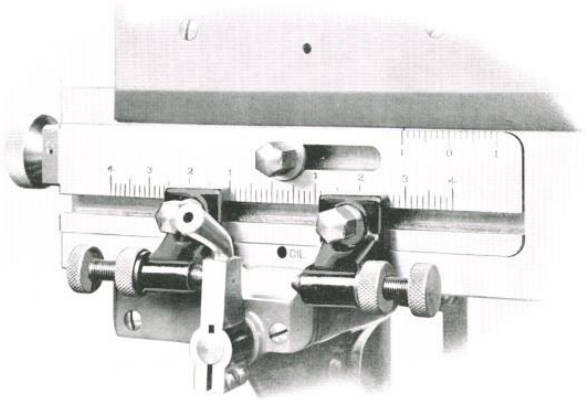
Pipe flanges 1/4 to 6 inches marked in their rough condition, using an adjustable roll type fixture.

Engine rocker arms marked with numbers, etc., on a cradle style fixture. (Note: They are just hand polished castings, no two alike.)

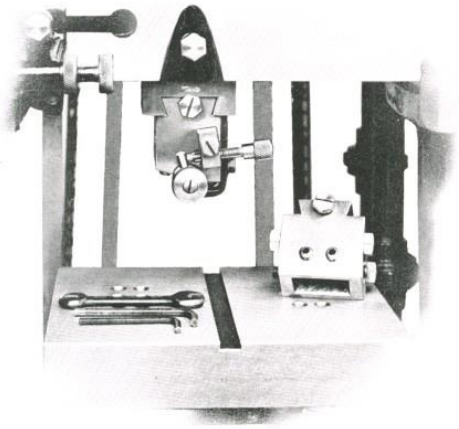
IS NOT A SINGLE PURPOSE



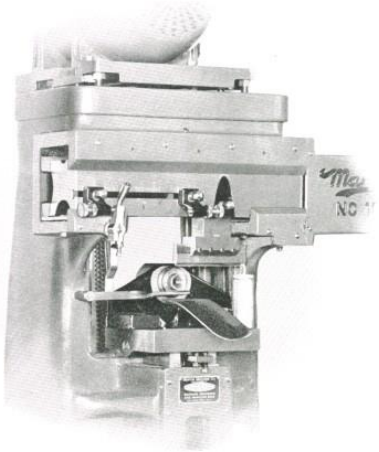
With cymbal stamping fixture.



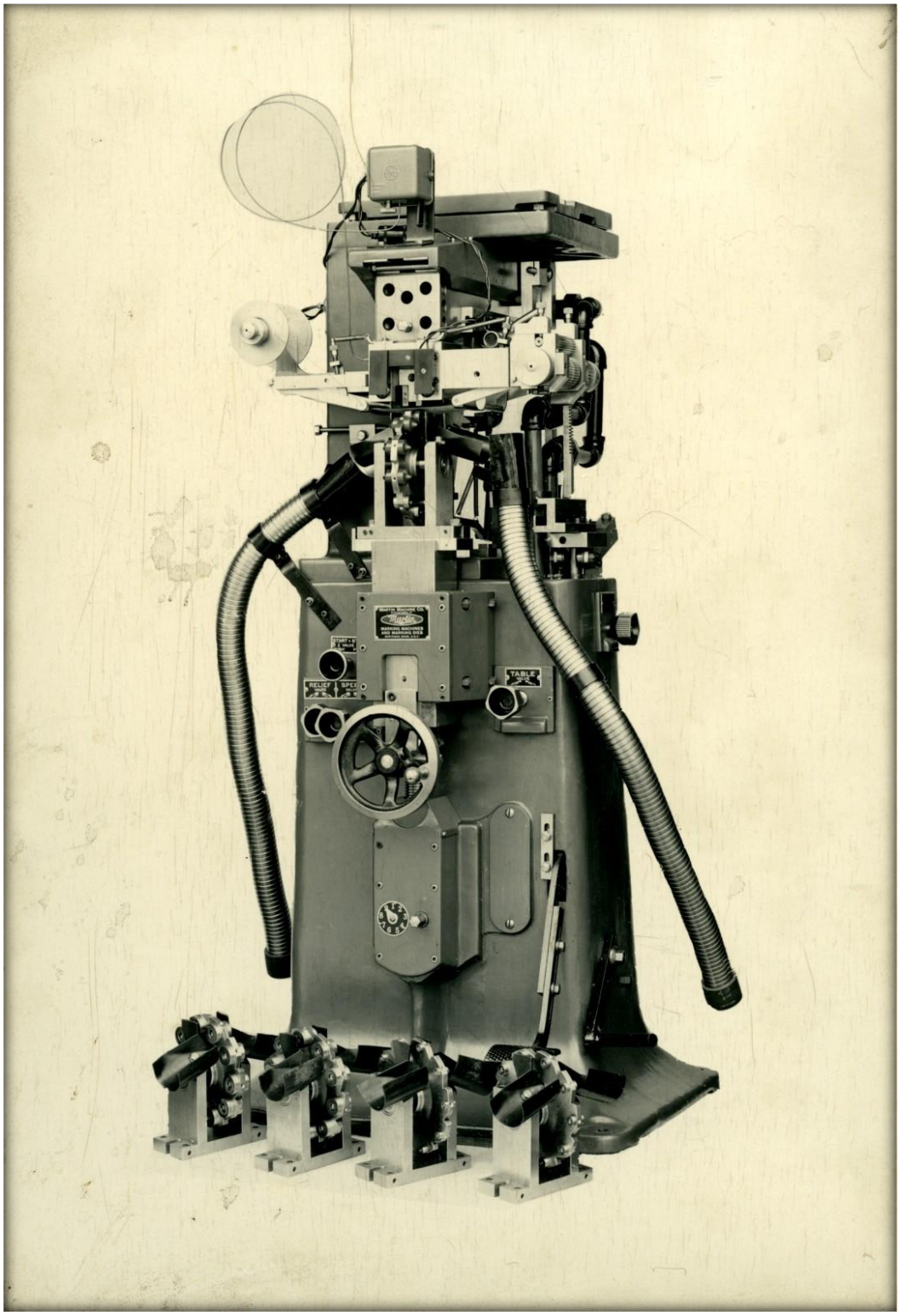
Slide Stop Adjustment feature is for adjusting the position of the impression on the work after the correct length of stroke is obtained by the stops. This eliminates throwing the correct length of stroke out of adjustment after it is once set.



The use of our Master Dovetail Holder makes it more convenient for the operator to eject the die holders. The fixture will not have to be removed from the table as it will when the shank style die holder is used. There is an in-and-out adjustment on the die holders which makes it a very handy outfit for quick change. Our Master Die Holders, also our Flat and Circular Die Holders, are made of a tough carbon steel, the Circular Holder having half bushings hardened with a strap take-up arrangement and adjustments necessary to adjust the return of the die.



Rolling in the grooves and folding over end of Condenser Cans with condenser inside.

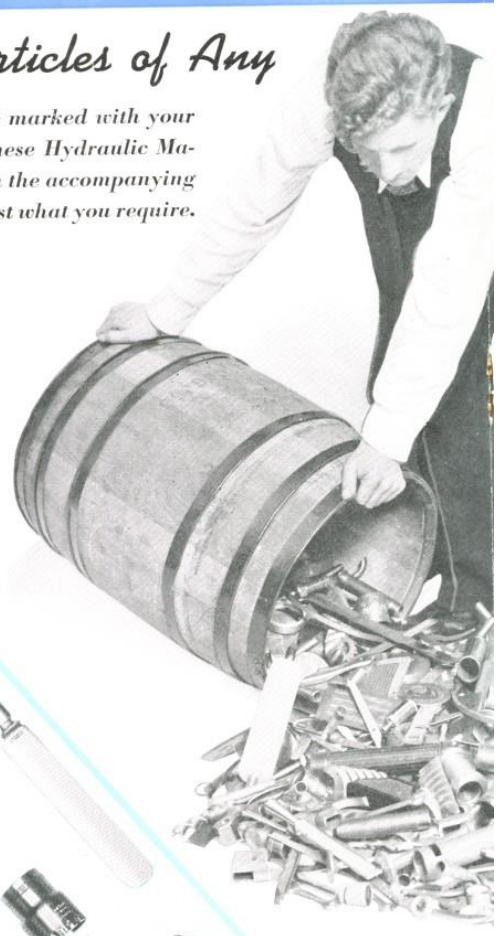


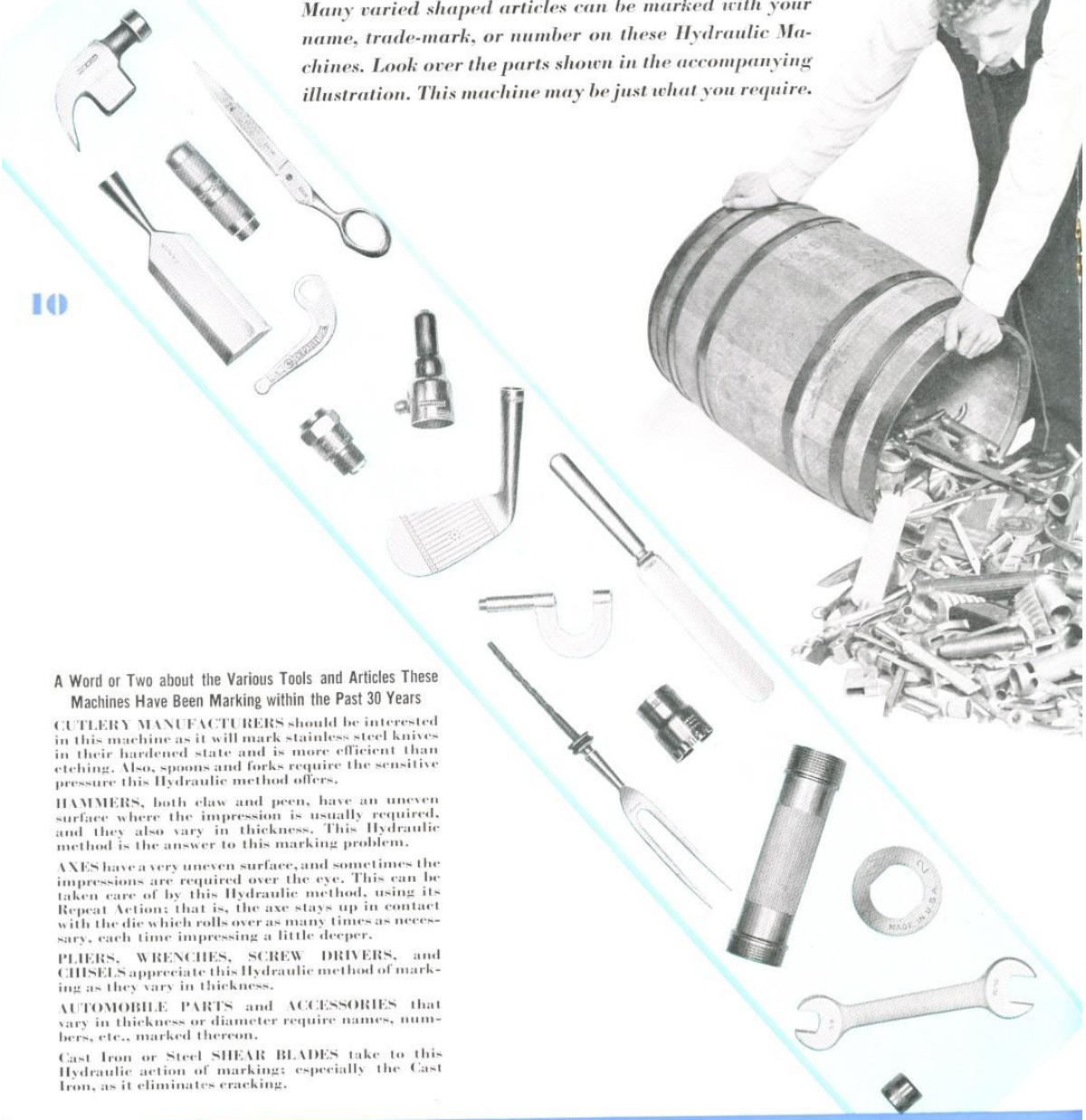
Small parts collection tubes.

UNIVERSAL Martin HYDRAULIC

Will Mark Articles of Any

Many varied shaped articles can be marked with your name, trade-mark, or number on these Hydraulic Machines. Look over the parts shown in the accompanying illustration. This machine may be just what you require.





A Word or Two about the Various Tools and Articles These Machines Have Been Marking within the Past 30 Years

CUTLERY MANUFACTURERS should be interested in this machine as it will mark stainless steel knives in their hardened state and is more efficient than etching. Also, spoons and forks require the sensitive pressure this Hydraulic method offers.

HAMMERS, both claw and peen, have an uneven surface where the impression is usually required, and they also vary in thickness. This Hydraulic method is the answer to this marking problem.

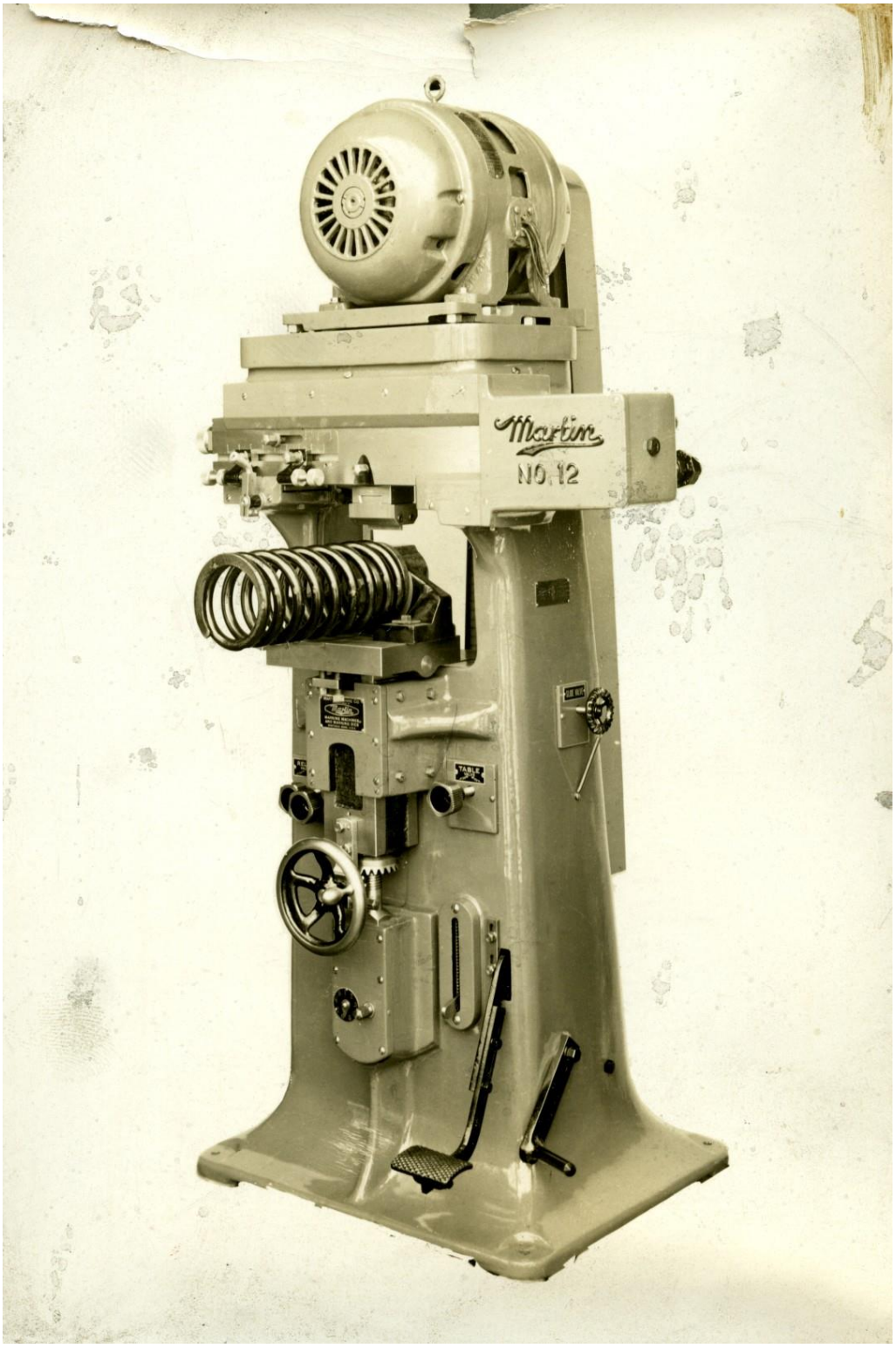
AXES have a very uneven surface, and sometimes the impressions are required over the eye. This can be taken care of by this Hydraulic method, using its Repeat Action; that is, the axe stays up in contact with the die which rolls over as many times as necessary, each time impressing a little deeper.

PLIERS, WRENCHES, SCREW DRIVERS, and CHISELS appreciate this Hydraulic method of marking as they vary in thickness.

AUTOMOBILE PARTS and ACCESSORIES that vary in thickness or diameter require names, numbers, etc., marked thereon.

Cast Iron or Steel SHEAR BLADES take to this Hydraulic action of marking; especially the Cast Iron, as it eliminates cracking.

MACHINE IS SELF-CONTAINED · · NO OUT



Accommodates many forms.

C MARKING Martin MACHINES

Material That Will Take an Impression

Martin Universal Hydraulic Marking Machines are a necessity to the manufacturer who requires a good uniform impression on his tools and parts, even if they vary in thickness or diameter. This Hydraulic method of marking keeps the die cost down.

GEARS, MILLING MACHINE CUTTERS, and articles of such nature where radius marking is required, can be marked on this machine using a radius style fixture and one straight line roll die. The different radii can be obtained by moving the fixture in or out.

HARD RUBBER, WOOD, BRASS, and ALLOY articles. For parts such as Washing Machine Wringer Rolls, Combs, Fountain Pens, Baseball Bats, Hoe, Shovel, and Rake Handles, do not hesitate to adopt this Hydraulic method of marking.

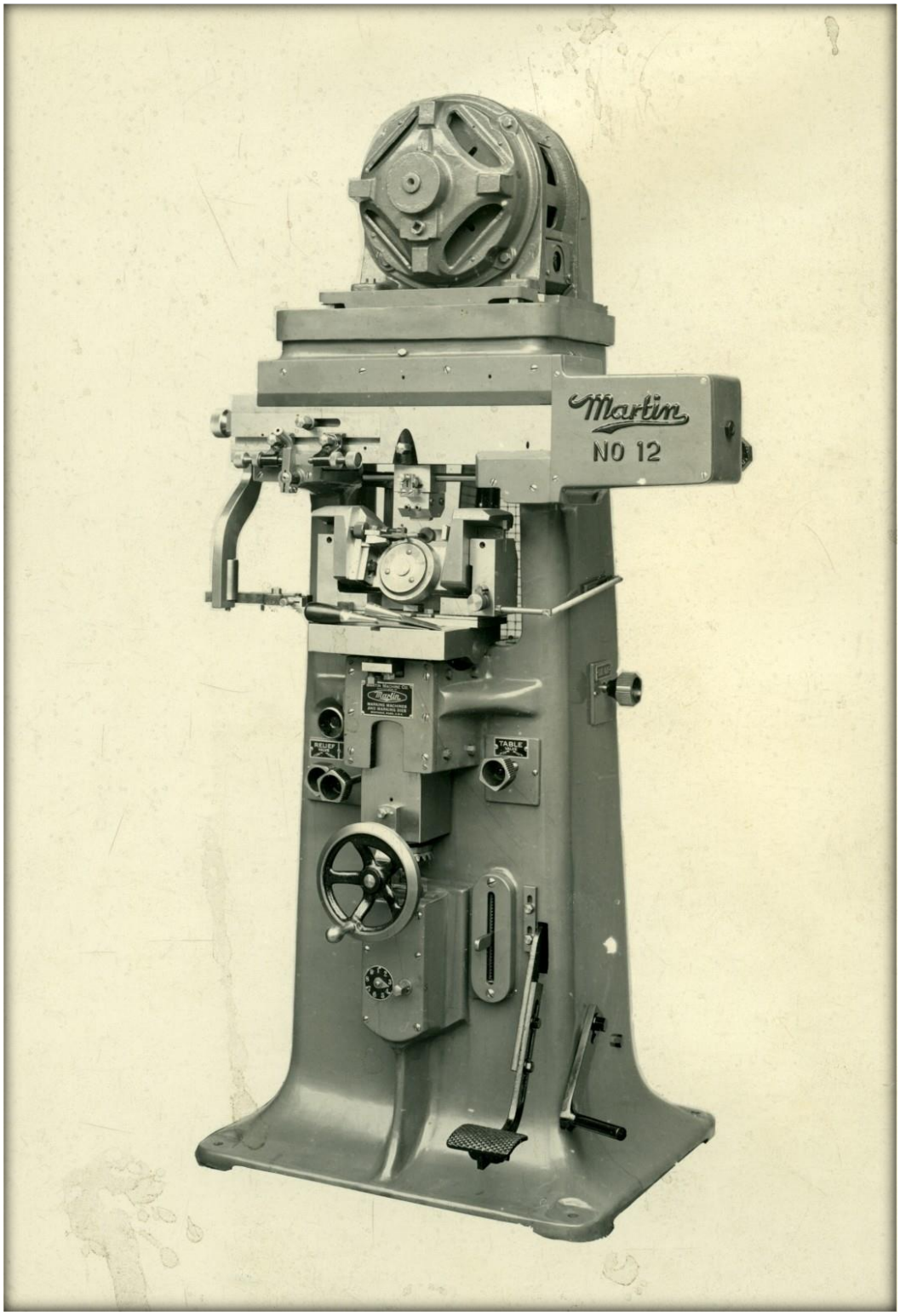
MECHANICS' TOOLS of many descriptions, such as Micrometers, Calipers, and tools of frail design, find the machine very suitable.

WAR MATERIALS such as Marking Gun Parts, Knurling Shells for the copper band, also marking the copper band and the shell itself, Cartridge Cases, Swords, Bayonets, and Machete Blades all welcome this Hydraulic method as most of these articles vary in thickness or diameter.

TAPS, REAMERS, and DIES require a machine that will mark the impression in good, deep, and uniform at a high rate of speed. Marking High Speed Taps with this Hydraulic Repeat method helps to keep them from warping.

PIPE NIPPLES and PLUMBING SUPPLIES vary in thickness, and bad impressions do not bring out their quality.

TSIDE HYDRAULIC PRESSURE REQUIRED



Intricate attachments.

ACTION OF MACHINE — After the work is placed in position under the die, the foot treadle is pressed down and released. The table comes up, and the work contacts the outer edge of the character of the die which is held in a suitable holder in the slide of the machine. The slide then moves to the left until it reaches the other end of the die. The table then drops down, the slide returns to its starting point, and the machine stops.

ROLLING FEATURE — The great feature of this rolling method of marking is that the starting or first character is pressed into the work; the die *does not strike* the work on the side or bevel of the first or starting character. Striking on the side of the starting character has a tendency to break and wear off the first characters of the die. By the use of this roll method, only a small portion of the impression is being impressed at one time.

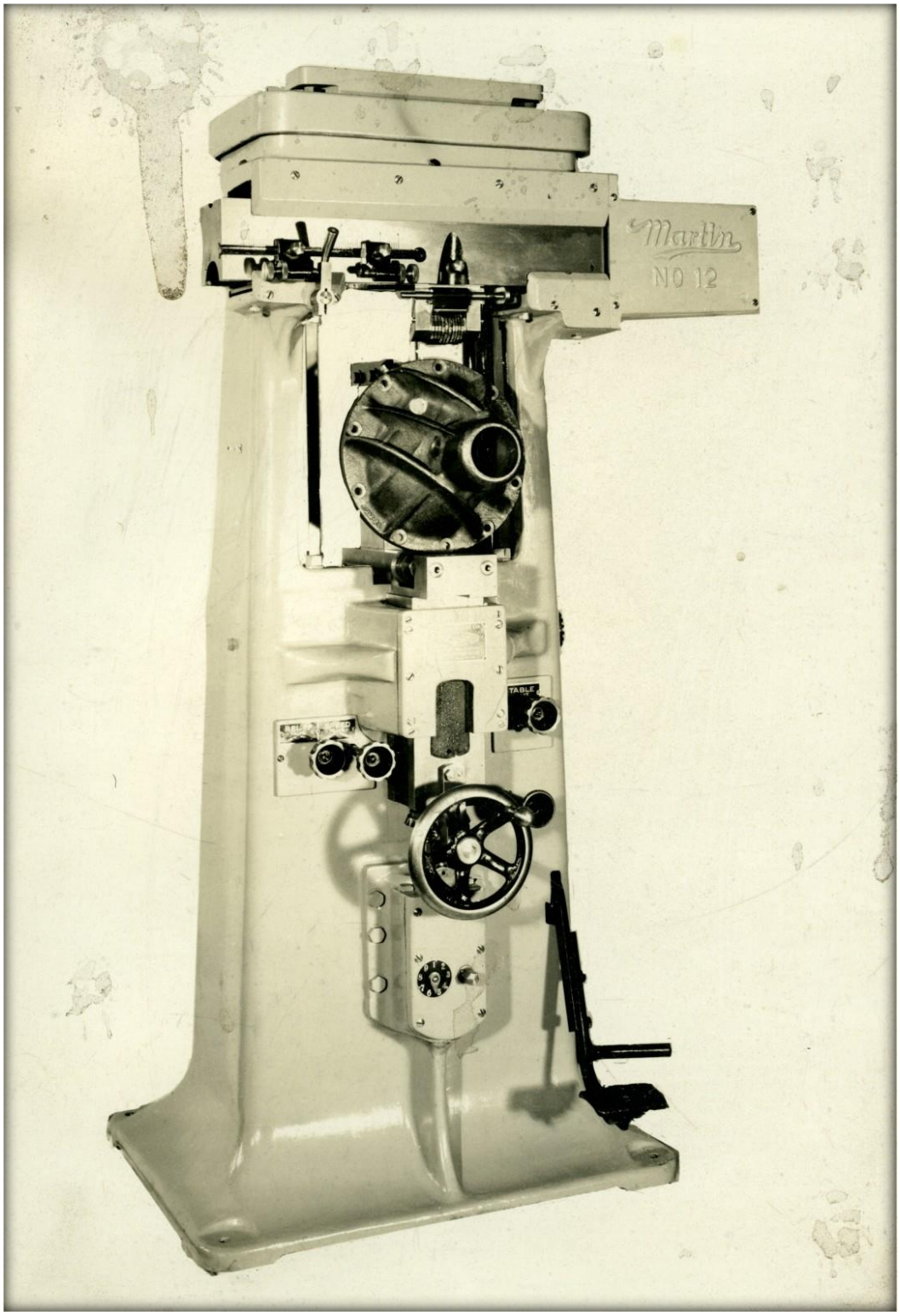
REPEAT ACTION — When the foot treadle is pressed way down the table or work thereon stays up, keeping the work in contact with the die as long as required by the operator. Each time the die rolls over the work, it sinks in a little deeper. When the foot treadle is released the table lowers and the slide stops at its starting position.

This method is used for delicate work where the work is not solid and where very deep impressions are required.

COUNTERS — Counters can be attached to the machine, such as shown on page 8.

AUTOMATIC AND SEMI-AUTOMATIC FEEDS — Disc, chain, turret, and chute feeds can be easily arranged on these Hydraulic Marking Machines.

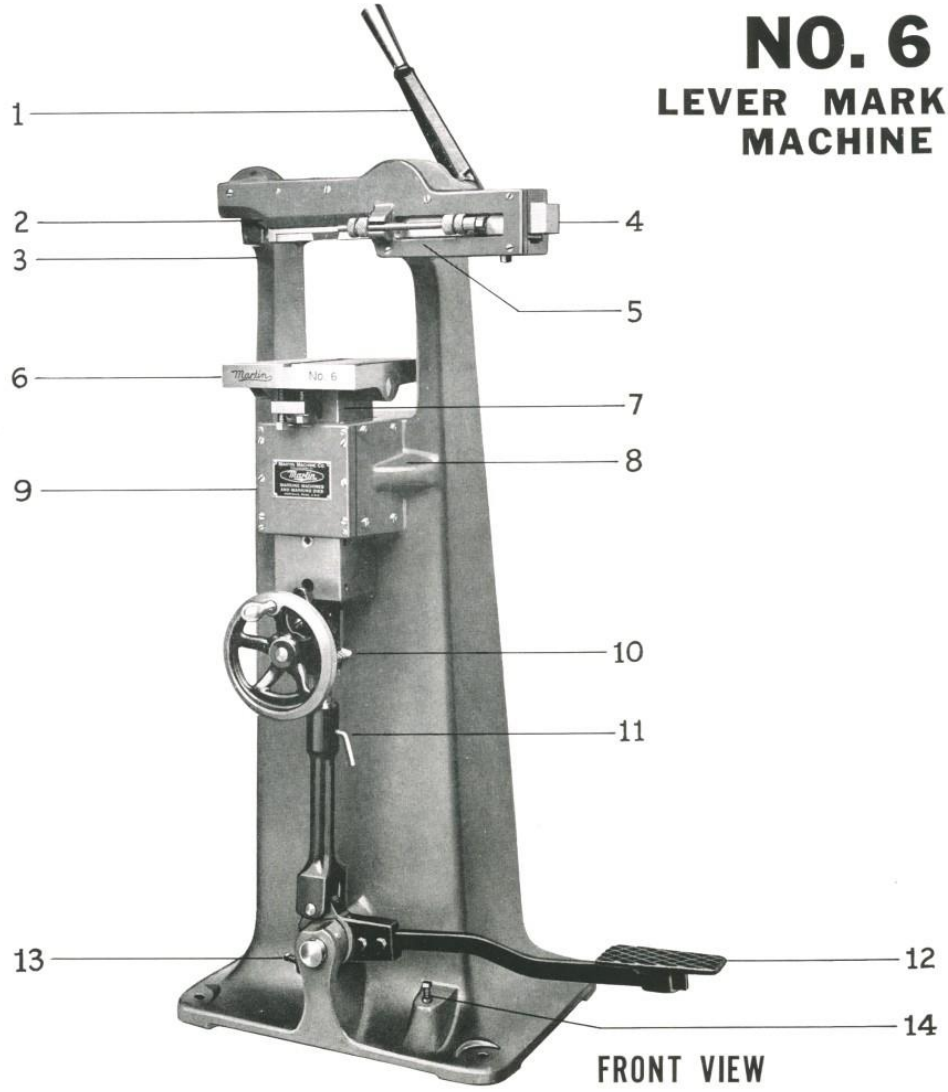
RADIUS MARKING — By using a special radius fixture, radius marking can be accomplished, and almost any radius can be reached by the inward or outward adjustment of the fixture using one straight line roll die.



A versitile stamping machine.

NO. 6
LEVER MARKING MACHINE

13



FRONT VIEW

No. 6 Lever Marking Machines are used by the manufacturer where production is not very great and different setups have to be made often. The machine is light and can be moved very easily from one place to another. It will mark either round or flat work, and the same die holders and fixtures that are used on the No. 12 Machine will fit on this machine.

UNIVERSAL Martin HYDRAULIC

1. Lever to actuate slide.
2. Slide made of steel and has dovetail arrangement to hold both flat and round die holders and moves on roller bearings between hardened plates.
3. Dovetail clamp that tightens die holders in place.
4. Gibs are incorporated on the bottom and back of slide to compensate for wear.
5. Adjustable stops to govern the stroke length of the slide.
6. Table has ½ inch keyway and suitable holes to hold fixtures in place.
7. Adjustment screws to adjust table so surface of the work to be marked will set parallel to impression on the die. The table rocks on a 1 inch diameter shaft.
8. Gib method is used to take up for wear on the table shank.
9. Front table shank cover is a gib in itself.
10. Handwheel for raising and lowering table.
11. Lock screw to hold table adjusting screw in a locked position.
12. Foot treadle.
13. Eccentric is adjustable.
14. Adjustment for down movement of foot treadle.

SPECIFICATIONS

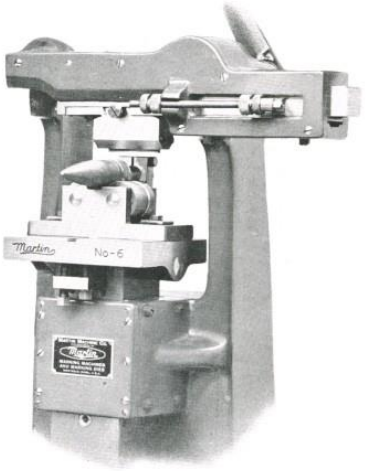
OF NO. 6 LEVER MARKING MACHINE

Travel of Slide — 5 inches.
Adjustment of Table — 5 inches.
Distance between uprights — 9 inches.
Distance between Table and Slide — 7½ inches.
Height of Machine — 49 inches.
Width of Base — 17 inches.
Length of Base — 20 inches.
Weight of Machine — 425 lbs.
Weight of Machine Crated — 500 lbs.
Weight of Machine Boxed for Ocean Shipment — 600 lbs.
Size of Box — 26 x 22 x 53 inches or 22 cubic feet.

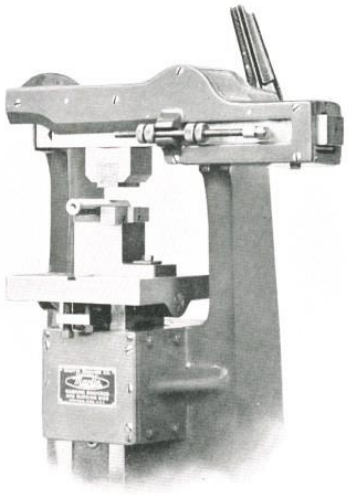
NOTE: Same Die Holders can be used on this No. 6 Lever Marking Machine as used on the No. 12 Hydraulic Machine.

LET US SOLVE YOUR

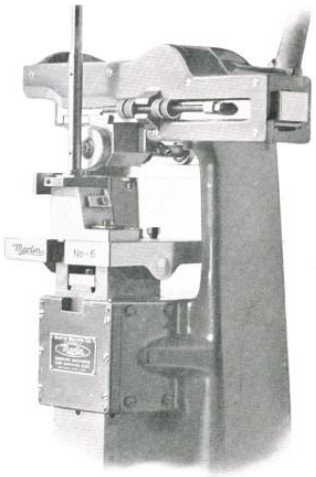
MARKING Martin MACHINES



This No. 6 Lever Machine is arranged with flat die holder and rolled type fixture for marking the copper band on 37 m/m shells.



Marking round pump parts on a No. 6 Lever Marking Machine, using a flat die holder, flat die, and flat fixture. The part rolls along on the flat fixture as it is being marked.



Marking airplane parts, using a flat fixture, offset die holder, and a round die. (Note: The part to be marked has a long shank, therefore the offset die holder.)

DIFFICULT MARKING PROBLEMS

MARTIN MARKING DIES

Experience obtained through the manufacturing of Marking Machines has taught us many important facts about the manufacture of Marking Dies, and places us in a position to offer and suggest improvements on the layout, cutting, and heat treatment of Marking Dies to help the user to obtain higher production and better impressions from each die.

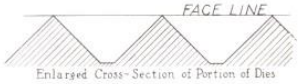
FEATURES THAT HELP *Martin* DIE USERS

1. Locating lines on side of die are to help the operator to set up the die; the lines line up with the ends of the impressions on the die.
2. Impressions are numbered on side of die, like 1, 2, 3, 4, etc.
3. One or more impressions can be cut on a single roll.
4. To duplicate any die, use the die number marked on side. It will assure you of correct duplication.
5. Holes in die are lapped to fit plug gauge.
6. Round bottom keyways help prevent breaking.
7. All our marking dies are cut, not countered or rolled.

HELPFUL INFORMATION

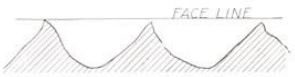
for the purchaser and user of marking dies, showing how, when, and why you get true value. High quality dies are cut, not countered. The illustrations below show the difference between high quality dies and lower grade dies.

Hand-Cut Throughout, Not Countered



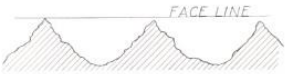
Uniform, smooth, perfect bevels on every character with no weak undercut places insure larger production, stronger dies, and neater impressions.

Faulty Bevels and Uneven Surface



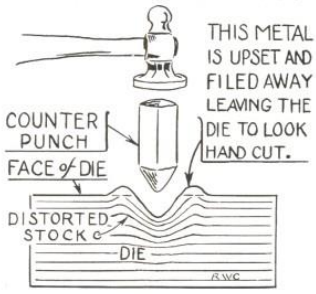
Undercut and faulty bevels which look good to the naked eye but have a tendency to break down and wear out quickly are costly dies to buy.

Rough and Jagged Bevels



Rough and jagged bevels cause the die to stick in its own impression and wear out and break quickly.

Countered Dies



Low priced dies are usually made by countering, which is done by punching in the center of the characters with a shaped punch while the steel is cold. This metal is upset and filed away, leaving the die the same in appearance, but the grain of the steel is altered and distorted and loses its best qualities for good service after the die is hardened.

Die Hints

50% of die troubles is laid to heat treating when poor cutting is the greatest cause.

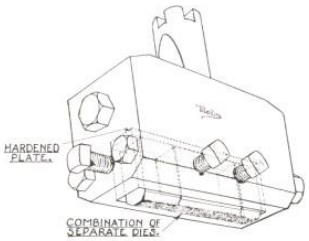
Recut dies have lost their best qualities by annealing and re-hardening.

The high class die cutter can cut high quality dies. He can also cut low priced dies if you desire this grade of work.

Gothic type cut dies are lowest in price and are the strongest and most popular style used.

Buying marking dies is like everything else — you get just about what you pay for.

Flat Die Holder for Individual Type for Marking Round Work



These flat die holders can be made any size, so that different numbers and wording can be set up.

Interchangeable Roll Type Holder to be used on Flat Work for Marking Various Impressions

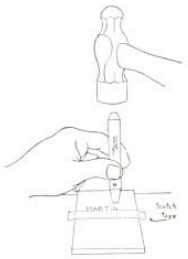
When many different names or numbers are required on flat metal pieces, the above type roll can be used to great advantage. It is made of three pieces of tool steel hardened, and a little tongue is required to hold in the type.

Suggestions for Those Who have to do Hand Stamping

To do good, uniform hand stamping with individual hand stamps has always been a difficult job for the best of us, and in the two illustrations we are offering these helpful hints.

If the operation of hand stamping is carried out as in illustration No. 1 you will find that straighter lines of marking can be obtained much easier than in the general way of straight across.

No. 1



No. 2

In illustration No. 2 you will note that a piece of scotch tape will help to line up the hand stamps before they are hit with a hammer. If the tape is not very thick, use two pieces, one on top of the other.

SUGGESTIONS FOR DESIGNS AND LAYOUTS FOR MARKING DIES

These impressions are from dies we have made.
Our Artists and Engraving Department will be pleased to offer
sketches and suggestions on request.

The above impressions are from dies for branding wood, using heat and scorching the background, leaving the design in natural wood.

A FEW POPULAR STYLES AND SIZES OF CHARACTERS TO HELP IN THE LAYOUT OF MARKING DIES

1 123456780
2 123456780
3 Chas McGolle
4 Boxed & Shipped
5 Lower Case
6 ROMAN
7 CIRCULAR DIE
8 Steel Stamps Hand-Cut
9 FLAT DIE
10 SERVICE
11 SATISFACTION GUARANTEED
12 LEVER MACHINE
13 BEVELS
14 MARKING
15 FLAT FACE
16 FIXTURE
17 On Trial
18 GOTHIC 1/4"
19 GOTHIC 3/16"
20 GOTHIC 5/32"
21 GOTHIC 1/8"
22 GOTHIC 3/32"
23 GOTHIC 5/64"
24 GOTHIC 1/16"
25 GOTHIC 3/64"
26 GOTHIC 1/32"
27 DESIGNING
28 SLIDE
29 PULLEY
30 PRODUCTION
31 Martin
32 PISTON
33 TABLE
34 HYDRAULIC
35 SHADED
36 OIL PRESSURE
37 HARDNESS
38 IMPRESSION
39 PISTON ROD
40 Blueprints
41 POWER
42 Die Cutting
43 Turners Falls
44 CYLINDER
45 TRUE VALUE
46 Neatness
47 QUALITY
48 NO. 12
49 UNIFORM
50 MOTOR DRIVEN
51 UNDERCUT

LAYOUT HINTS

Layout for impressions on roll dies should be balanced as much as possible to get the best results.

For Example

(a) A BAD LAYOUT

This would be considered a bad layout. The end characters on the wording "layout" would get the brunt of the stroke and impress in deeper.

(b) A GOOD LAYOUT

This layout is well balanced and will stand up much longer and make neater impressions than (a).

(c) — DASHES — CAN BE USED

Dashes are used considerably to balance layouts.

(d) A BALANCED THREE LINE LAYOUT

This layout is well balanced and the ends will stand up longer as the two lines are the same length.

APPROXIMATE NUMBER OF STANDARD GOTHIC LETTERS TO THE INCH

1/64 inch	40 per inch	5/32 inch	6½ per inch
1/32 inch	24 per inch	3/16 inch	5½ per inch
3/64 inch	21 per inch	1/4 inch	5 per inch
1/16 inch	15 per inch	5/16 inch	3¼ per inch
3/32 inch	12 per inch	3/8 inch	3 per inch
1/8 inch	8 per inch	1/2 inch	2¼ per inch

Space between two words should be the width of one letter at least.

Dies!

Printed in U. S. A. by Oxford Print, Boston