

## XIII. Accessories

### QUICK CHANGE LINOTYPE MAGAZINE RACKS

THESE racks are made all of iron and steel, and take up less room than any other device for storing magazines. The magazines hang vertically on lugs, the same as on the Linotype, and at about the same height as on the machine. Any magazine is instantly available, and all are equally accessible—always in position and ready for immediate use.

In offices where changes are frequent, the quick-change magazine rack will prove itself a time and money saver, as well as a space saver. *Magazines should never be laid down flat, or leaned against a wall.*

Made in standard sizes to carry four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen and sixteen magazines. The one for the Model 9 is only made to carry five magazines.

In ordering, always figure on one extra arm to take the magazine lifted from the Linotype. This will obviate the necessity of setting it down and handling twice.

Shipping weight (five arms), about 385 pounds; add 50 pounds for each arm.

### SUPPLEMENTAL KEYBOARD

The supplemental keyboard is so made as to permit of its being placed on the top of the regular Linotype keyboard when matter in a foreign language is to be set on a machine equipped for regular English. For instance, if it is desired to set Russian on an English machine, a supplemental keyboard equipped with the Russian keyboard layout can be placed on the top of the regular keyboard. With this change all that is necessary is to have the proper matrices in the magazine. The characters on the supplemental keyboard can be arranged according to the layout desired. The supplemental keyboard does away with the necessity of changing the keybuttons and gives the added advantage of having but one keyboard layout before the operator at a time. When ordering these keyboards it should be stated on what model of machine they are to be used, the language to be used, and the layout carefully indicated.

### LINOTYPE PRACTICE KEYBOARD

This keyboard is constructed substantially the same as the standard Linotype keyboard. It is exactly the same size and is equipped with standard parts. The keybars are weighted so as to give the same feel or

sense of touch as the regular keyboard on the machine. While designed primarily for use in schools of instruction, a number have been purchased by individuals who desired to take up linotype operating as a trade.

#### MATRIX CABINETS

Provide a convenient, safe, and dust-proof receptacle for matrices, spacebands, liners, tools, etc. The advantage of having all supplies concentrated and classified in a cabinet of this sort will be readily apparent in time and labor saved, and the annoyance of hunting for misplaced material avoided. Strongly and substantially constructed of steel, in keeping with modern steel composing room furniture that will last a lifetime, or it can also be furnished in hardwood. Made in two sizes with eight or twelve matrix drawers in either steel or wood.

#### MATRIX GALLEYS

Small sheet-iron galleys for storing advertising figures and miscellaneous sorts are a great convenience for offices using a variety of special characters and part fonts.

Detachable and adjustable clip holds matrices in upright position. The high wall at back of galley has two perforations for convenience in hanging it up. Every office should have enough of these galleys to accommodate the sorts of all its fonts—one galley for each font.

The increasing number of special characters and miscellaneous sorts which are continually being added to our various fonts, and for which no allowance is made on the keyboard, renders this device invaluable. It serves the purpose of a sorts tray and obviates the necessity of changing trays on the machine each time the magazine is changed. Its use is particularly advantageous in connection with the pi stacker. All that is necessary is to remove the matrices from the stacker, insert them in the storage galley, and replace with other matrices.

#### MATRIX TRAYS

Wooden trays to hold full fonts of matrices will be found very convenient for storing and handling fonts when not in actual use and for which no extra magazines are provided.

#### LINO TYPE THERMOMETER

In operating the Linotype, proper temperature of metal is of the highest importance. It should be held between 535 and 550 degrees. A low temperature gives imperfect faces, and a very high temperature injures the metal, produces poor slugs, and in time affects the matrices.

A special thermometer can be secured from the Linotype Company. This thermometer, inserted in the pot of the machine, enables the attendant to adjust the governor so that the metal may be brought to and maintained at the exact temperature desired. Every office should have one or more of these thermometers.

## REMELTING FURNACES

These furnaces are used for remelting Linotype slugs and casting them into pigs which can be put into the metal pot as desired. It is very desirable in remelting Linotype slugs to keep the dirt and dross out of the metal pot, and by the use of the remelting furnace this result may be obtained, and it more than pays for itself in the better product of the Linotype in the way of more perfect face and solid slugs. There are several kinds of these furnaces manufactured, using wood, coke, coal or gas, and of different sizes to meet the requirements of different offices. We shall be pleased to furnish information regarding them at any time.

## LADLE AND SKIMMER

These are for use with any remelting pot. They are standard articles of their kind, and necessary for proper treatment and handling of the Linotype metal.

## TO PREVENT HAIR-LINES USE "NOTABUR"

To prevent the accumulation of metal on the side of the spaceband wedge at the casting point, we have prepared a compound in hard wax form, called "Notabur." After bands are given their daily cleaning, rub the side of wedge over with "Notabur." This keeps the surface of the wedge smooth and clean and prevents the metal from adhering to it. It is of vital importance that the band be kept free from the accumulation of metal at the casting point, and we know of no easier and cheaper way of doing it than by the use of this substance.

## TAPS AND DIES

For the accommodation of our customers we have made up sets of taps and dies, which are the most difficult to obtain from hardware stores, and carry them in stock at our factory and agencies. They are packed in a neat case which contains a die stock and one each of the following size taps and dies: 4 x 48, 6 x 48, 8 x 32, 10 x 32, 10 x 28, and  $\frac{1}{4}$  x 24.

## LINOTYPE METAL

*Producing Solid Slugs—Preventing Burrs.*—Proper treatment of the metal is vital to success in operation of the Linotype. The first and most important matter is to keep the temperature of the metal within the proper limits. Very high temperature results in porous and spongy slugs, in defective faces, in deterioration of the metal, and in the sticking of the slugs in the mold. A temperature that is too low results in imperfect faces and in the fouling of mouthpiece and mold, so that the machine will not lock up properly.

The machinist should test the temperature of the metal and adjust the machine gas governor and the gas flame under the pot to maintain the temperature at from 535 to 550 degrees Fahrenheit. The pressure of the gas in the supply pipes should be as low as possible, consistent with

the production of a good flame. Adjust the cock of the burner so as to produce a steady blue flame. Do not permit the gas to blow through the burner or light back at the air entrance of the Bunsen burner and produce a yellow flame, as this deposits lampblack on the burner.

Having first seen that the gas flame and pressure are within proper limits, test the temperature of the metal by a thermometer, or otherwise, and then regulate the gas governor on the machine until the proper temperature is reached in the pot.

Keep the metal in the pot at a nearly uniform level. Do not permit it to run too low. Do not introduce a large quantity of cold metal at a time.

Keep the metal clean and free from foreign substances. Avoid, particularly, the introduction of zinc, brass, type, or stereotype plates. They destroy the composition and render the metal unfit for Linotypes.

The pot should be cleaned occasionally to remove the oxide or dross that collects thereon. The plunger should be cleaned daily with a wire brush made especially for this purpose.

*Heating the Metal.*—A uniform gas-pressure burner underneath the melting pot will consume about thirteen cubic feet of gas per hour. The gas furnished in different towns and cities varies. Either illuminating or natural gas may be used. Gasoline-kerosene burners can be supplied with new machines before shipment, for use where gas cannot be obtained. To prevent excessive heating of the metal the pressure at the burners should be low and uniform. In most cities and towns the pressure in the gas mains changes greatly in the course of a day or night. Where the change in pressure is excessive, we advise the installation of a plant governor on the supply pipe, to control the pressure.

*Treatment of Metal.*—The life of good metal depends upon the care it receives. Having put in good metal, see that it is treated properly. Under no circumstances should slugs be fed directly into the metal pot. They should be melted and cleaned in a remelting furnace, in as large quantities as possible. The temperature for remelting should be about fifty degrees in excess of the mean working temperature in the machine.

When the whole mass has become molten, it should be stirred thoroughly for fifteen or twenty minutes. The dross and dirt will then appear on the top in the form of a black powder. This should be skimmed off carefully, leaving the surface of the metal clean and bright. The metal should then be poured as quickly as possible, always ladling from the bottom of the pot.

Linotype metal is a mechanical and not a chemical mixture. On account of the difference in the specific gravity of the ingredients entering into it, it is most important that the entire mixture be kept in constant agitation while under heat when remelting. Otherwise the heavier parts will settle to the bottom of the pot, thus forming an imperfect and unsatisfactory mixture.

Whenever possible new metal should be mixed in the furnace proportionately to the loss of the old stock. This will help to standardize the entire mixture and keep it uniform.

*Reviving Old Metal.*—After the metal has been used for a long time and remelted *many times* it becomes brittle and unsuitable for use. Purification may best be effected by treating the metal with “Reductio” Linotype metal flux, furnished in pint cans. This quantity is sufficient to clean two or three tons of metal. Instructions for its use are given on each can. The dross skimmed from the metal should be saved and added to the mass during purification.

“Reductio” is a perfect metal flux that removes all dross, dirt and other foreign matter from the metal. It saves a large percentage of the richer ingredients which are usually skimmed off with the dross, thus giving a much longer life to the metal. It amalgamates the ingredients that have become separated by the chemical action of the heat.

Some of the companies manufacturing Linotype metal will carefully test, free of charge, samples of old Linotype metal submitted to them, advising whether it can be properly toned or not, and if so, the expense involved. This is more satisfactory than furnishing a toning metal for indiscriminate use without directions.

#### THE LINO TYPE GASOLINE-KEROSENE BURNER

Under conditions where gas or electricity is unavailable, the Linotype gasoline-kerosene burner provides a thoroughly efficient and satisfactory source of heat for the metal pot of the Linotype. Where gas is available the burner can be easily substituted in contingencies involving the temporary shutting off of the gas supply and, moreover, its cost is low enough to warrant keeping one or more in reserve for such emergencies.

This burner is adapted to either gasoline or kerosene. Like the familiar types of heaters using gasoline and kerosene the burner vaporizes its fuel and produces the gas that it consumes by forcing the mixture against the heated burner plate. It gives a steady blue-green flame that heats the metal evenly, and it is at all times under perfect control.

The equipment for one Linotype consists of the burner assembled, the pressure tank with either one, two or four outlet valves, the pump, and ten feet of hollow feed wire to carry the gasoline or kerosene to the burner.

The equipment has no threaded joints to give trouble through leakage. It is equipped with a positive mouthpiece burner control. The burner can be taken apart for cleaning without removing screws, and its position on the machine is such that it is easily accessible to the operator.

The fitting of a Linotype gasoline-kerosene burner to the machine is a simple matter, and its adjustments and operation are equally simple. It can be supplied to any model of Linotype in a few minutes, and no special tools are required.

In using the gasoline or kerosene burner the greatest point is keeping clean everything connected with the burner and its connections. Much of the gasoline and kerosene now furnished for commercial use contains impurities and sediment, and sometimes makes a deposit of carbon or similar substance *in the pipes* leading to the burner or in the burner itself. As mentioned before, this burner is now designed *so that* the cleaning recommended can be done easily and readily. This must *not* be neglected if good results are to be obtained from the burner.

It is also to be remembered that in many cases insurance companies require special arrangements to be made, such as having the tank outside of the *building*, and other precautions are sometimes required. When installing a gasoline or kerosene burner the *insurance* agents should be consulted and care taken that the insurance policies are not vitiated in any way.

As a matter of fact no accidents or trouble of any kind has been reported from the use of these burners.