Ames Lettering Guide: Use and Overview

Joshua Kuhl

Bamboo Hare .com

August 6, 2021

Abstract

This article will cover the 'Original Ames Lettering Guide' manufactured by Midland Plastics, Inc. The article will cover what it is, why it was used, the description of the device and how to use it effectively. Photos of the device will be included.

I. Introduction

The 'Ames Lettering Guide' is a multipurpose template made of plastic. The device contains an adjustable circle inside a frame which allows for guidelines to be drawn onto the artwork. These guidelines, which are adjustable to known values, are used for hand-lettering. Although replaced by modern day architectural and graphics software, historically any text that needed to be included in architectural drawings was hand-drawn. This was also true of American Comic books and Japanese Manga. The letters drawn needed to be of a consistent height and spacing throughout the artwork.

Title blocks, a type of graphical frame to contain text and still in use today, also needs to be drawn. The text inside these blocks needs to be of equally spaced lines with consistent letter height. Originally a ruler and triangle were used to measure the needed distances. This was tedious and required time. (See [Sve18] and [Mil15].) The 'Ames Lettering Guide' was developed to solve this problem. It contains pre-measured distances while adding other features needed for the draftsman. The template allows for quick and consistent lines of both title blocks and their corresponding text guidelines. An angled edge of 68° provides a standard reference for angled text.

II. Description

Presently manufactured by Midland Plastics (www.midlandplastics.com), I purchased mine at 'Paper & Ink Arts' for $3.95 plus tax and shipping [1].

The device contains a movable circle in the middle of a frame. The circle contains four columns of holes with a fifth column located on the frame itself. For the purpose of this document, the three middle columns will be labeled 'A' through 'C' with the other column being labeled as 'Metric'. The fifth column is of equidistant holes and is located on the far left side of the device. (See figure 1.)

With the device laying flat on the table and the perpendicular edge on the left side, the column of holes on the farthest left are of 1/8 of an inch equidistant from each other. These are located on the frame.

Along this row, the raised indicator marked with a numerical "1" will mark the 1-inch height from the bottom edge. A similarly raised numerical "2" will mark the 2-inch height level from the bottom edge of the device. These measurements will match the corresponding hole in the template.

The angled right edge is meant to be placed at the bottom with the former bottom edge of the device now to be used as reference, rotating

[1] https://www.paperinkarts.com/amesgu.html

the device 90-degrees clockwise. The bottom edge, now the left edge, will create a 68° slope. Very light lines are to be issued so as to provide a consistent slant to letters drawn in this way.

Additionally, a 'check mark' template has been provided in the bottom-right corner of the device.

III. Use

i. Overview

Each line of text requires a 'baseline' and extra space between lines of text. A reference line for lowercase letters is also required. Each column of holes provides for three rows of letters plus an extra baseline for the continuation of the text block.

Adjustment of letter height is accomplished through turning of the disc within the frame. Aligning numbers to frame indexes creates known measured distances between baseline and uppercase letter-height.

ii. Adjusting Letter Height

Using the disc numbers "2" through "10" in association with the Frame Index (see figure 2) creates letter heights in 1/32" increments.

To use the disc numbers in fractions of 1/32 of an inch, take the number on the disc and multiply it by 1/32nd (0.03125 decimal). This will give the letter height in 1/32 of an inch. Reduce the fraction if needed.

For example:
If the number "8" is selected and aligned to the Frame Index Mark, then the value will be 8/32" which reduces to 1/4". See figure 2 for photo reference.

The Secondary Mark, if adjusted to the fraction marks located on the right side of the frame, will adjust the height of Column 'B' to the printed distance on the frame (upper-right corner).

The Metric letter height adjustment is similar. Use the frame index marked with an "M" on the left side of the device. Align this indexing mark to the disc numbers which are located next to the METRIC column. This will adjust the hole spacing in millimeters. The metric column has two raised bracket sets. The left bracket set creates half-height lines (dashed lines in figure 6) while the right bracket set creates full-height lines (solid lines in figure 6).

iii. Height Ratios

Each column maintains a different uppercase letter to lowercase letter ratio height:

1. Column A has a 3:5 ratio where the lowercase letters are 3/5ths the height of the uppercase letter. See example 3.
2. Column B has *equidistant* lines spacing. This translates to lowercase letters being one-half of the height of the uppercase letters. See example 4.
3. Column C is a 2:3 ratio of lowercase to uppercase letters. This is also called the 'Reinhardt System'. See example 5.

IV. Photos

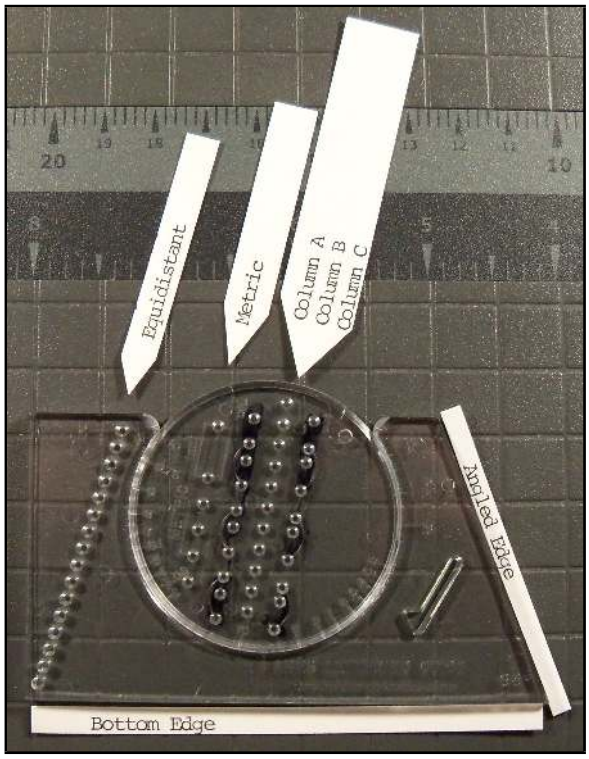

Figure 1: *Ames Lettering Guide*

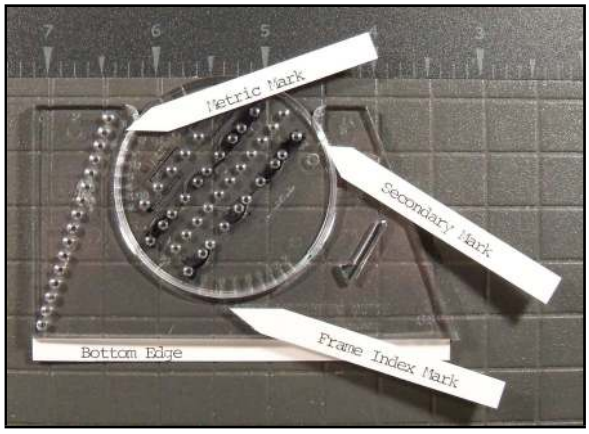

Figure 2: *Frame Index Marks*

Figure 3: *Column A Example*

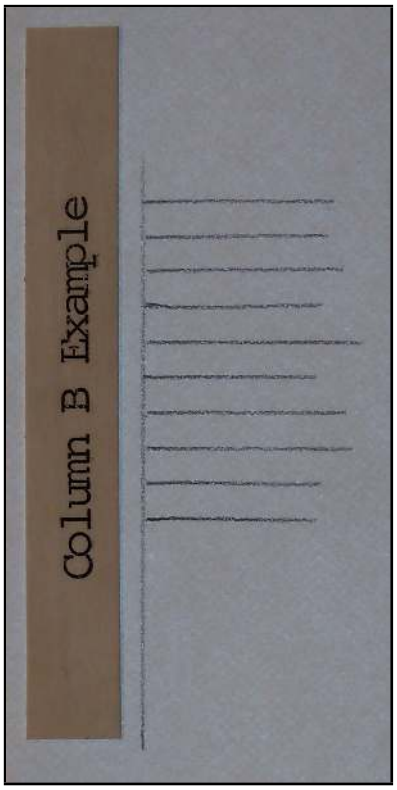

Figure 4: *Column B Example*

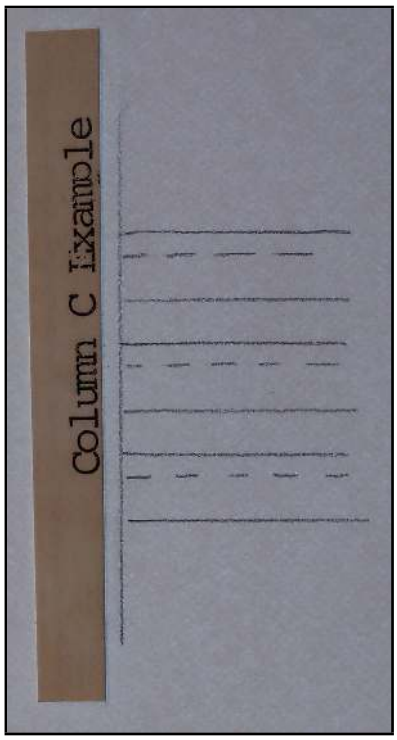

Figure 5: *Column C Example*

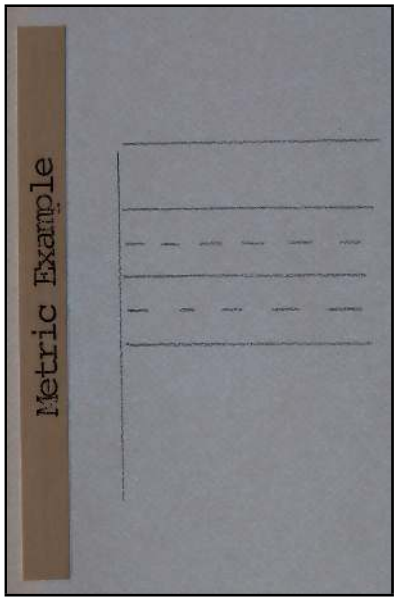

Figure 6: *Metric Example*

V. Why does this work?

The circle (rotating disc) is a type of incline plane. As one turns the disc it increases the vertical height. (See [Mil15] page 15. Also see [Sve18] page 40 and page 125.) As they are on a circle, it is not a direct linear transformation. That is why the numbers on the disc are not equally spaced. Instead, they have an exponential feel to their relative distances.

VI. Conclusion

The 'Ames Lettering Guide' is several tools in one. The modern CAD/CAM software and manga artist-centric software like 'Clip Studio Paint' does this work for us. For some, though, there is no replacement for hand-lettering. For those, this device was made for them.

References

[Sve18] Carl L. Svensen. *Essentials of Drafting; a Textbook on Mechanical Drawing and Machine Drawing, With Chapters and Problems on Materials, Stresses, Machine Construction and Weight Estimating*. Sagwan Press, 1918.

[Mil15] Harvey Willard Miller. *Mechanical Drafting: Revised in 1915*. Forgotten Books, 2015.