Stanley Model Shop Tools:

A Transitional Furring Plane Prototype

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This is the first of what is intended to be an occasional series describing some of the Stanley Model Shop tools in my collection and sometimes giving opinions and historical tidbits relating to them. Many of the Model Shop tools are prototypes and, thus, are either one-offs or very limited production models. Although information about a number of Model Shop tools has been published in journals such as The Chronicle, The Gristmill, and Fine Tool Journal and in various blogs, information about many others is not generally available to the tool collecting community. I hope this series will help spread information about a few more of these very interesting tools.

Stanley maintained the Model Shop from the earliest times [1]. The Model Shop gave Stanley inventors an opportunity to try out new ideas and develop prototypes for new tools, to test prototypes and production parts, and to evaluate competitor's products. The Model Shop also stored prototypes for future reference. Stanley actively solicited ideas for new tools from users at least as early as 1900 with the August 1900 Catalogue No. 26 stating on page 2 "We are frank to state that the design of many of the special tools which we show originated in the suggestions of our customers. We are always pleased to receive suggestions from the tool-user." [2] I have heard, but I can't remember where, that Stanley held regular Tuesday morning meetings to consider ideas and prototypes for production.

There were a number of authorized clean outs of obsolete prototypes, casting patterns, and other material from the Model Shop over the years with the largest happening in 1964 and 1974. Typically, the removed materials were designated as "junk" and employees were allowed to take what they wanted. This accounts for many of the prototypes seen today.

Many of the model shop tools share characteristics that differentiate them from production tools. First, they are very limited production tools or one offs, some of which are unlike any regular production Stanley tools and some of which differ from regular production tools only in minor details. Many Model Shop tools use mostly stock parts, but have specially made unique features. The stock parts may be parts pulled off the production line or may be unfinished, imperfect, or seconds not of acceptable quality for sale. Cutters may or may not be marked. Lastly, many (but not all) of the Model Shop tools have Model Shop identifying marks painted or scratched on them, often in several places, or have tags identifying them as model shop prototypes. Most of the identifying marks are numerical, although some are alpha-numeric. These Model Shop marks don't seem to have any particular

chronological order and may have been put on at the whim of whoever was cataloging the prototypes that day. Most Model Shop tags I have seen have dates which are useful for telling when the prototypes were made.

With that introduction, we now turn to the subject of this piece, a transitional furring plane prototype (Figure 1). This is one of my favorite prototypes because of its simplicity and its self-documenting provenance. As with many Model Shop planes, this one shows no signs of use.

Figure 1 Stanley prototype transitional furring plane

The prototype is based on a regular production Type 10 (1893-1899) Stanley No. 35 transitional plane. Features of Type 10 include an S casting mark on the lever cap, left hand threads on the adjusting nut, three patent dates on the lateral lever, and a STANLEY / PAT AP'L 19 92 stamp on the cutter. The stamp on the cutter is quite weak on this example. The patent date refers to Edmund A. Schade's Patent No. 473,087 "Plane Iron" of that date for placing the large hole in the iron at the bottom of the slot in the iron rather than at the top as had been done previously on Stanley bench planes.

Although the patent for the "Schade slot" was not issued until 1892, Stanley had been producing and marketing the feature in 1890 [3] [4]. These dates became important because features made publicly available more than two years before the patent was granted rendered the patent void. Among others, the Ohio Tool Company copied the large hole at the bottom of the iron (Ohio Tool used a hexagonal hole rather than a round one). Stanley sued for patent infringement with the trial

beginning in 1901. Ohio Tool asserted that the low hole was a prior invention available to any company. The court agreed with Ohio Tool, noting that the patent was an obvious solution to a simple problem, and Stanley lost the case.

Edmund A. Schade was born August 29, 1855, in Saxony Germany [4]. The family immigrated to America about 1864 and Edmund apprenticed in the Sargent & Company machine shop prior to 1873, when he was employed by Stanley Rule & Level Company. Shortly thereafter he rose to foreman of his department and by 1900 became Mechanical Superintendent and remained so until his death in 1932, ending a 59 year career with Stanley. The April 19, 1892, plane iron patent was Schade's first known plane related patent. Other notable Stanley plane patents by Schade include the design patent for the No. 20 circular plane (1893), patents for the No. 55 combination plane (with Justus Traut, 1895), the early Bedrock plane frogs (1895), the tilt handles on the No. 85 and 10 ¼ planes (with his brother Albert, also employed by Stanley, 1905), the new style Bedrock planes (1911), brass bushings and machine screws to secure the frog on transitional planes(1912), Gage iron planes (1920), the design patent for the No. 144 plane (1925), and the patents for the No. 164 plane (1927) and Ready Edge Blades (1927).

Returning to the prototype furring plane, it was made by modifying the sole of a No. 35 plane. As can be seen in Figure 1, Figure 2, and Figure 3 the sole has been by hollowed out ahead of and behind the mouth, leaving small bearing surfaces at the mouth and heel (the purpose of the two small bearing surfaces is to allow the plane to follow the contours of rough sawn lumber when planing the "fur" off rather than to produce the flat surface that typical smooth planes produce). Figure 3 shows that the hollowing out at the toe was not done very carefully; the cut is slanted across the toe of the plane. Figure 3 also clearly shows the markings on the nose of the plane: the Model Shop number 3706 and STANLEY / RULE & LEVEL COMPANY / NO. 35 with the last line being cut in half.

Figure 2 View of sole of prototype plane

Figure 3 Detail of nose of plane

Details of the markings on the sole of the plane are shown in Figure 4. I have observed the I15 mark on other Model Shop prototype planes. Its significance is unknown to me. The sole behind the mouth also contains the signatures of E. R. Van Vleck and Boyer Lilpho(?) and the date March 26 / 04. The toe of the sole is signed "Made April 9/04 by E. A. Schade." I have seen other examples of Schade's signature and this appears to be in his hand. It is interesting that Schade, who claims creation of this prototype, signed it two weeks after the other two. E. A. Schade has been discussed above, but the identities of E. R. Van Vleck and Boyer Lilpho(?) are unknown to me. Were they employees of the Model Shop or did they have other positions with the Stanley Rule and Level Company? If anyone knows, let me know.

Figure 4 Details of markings on sole

The date this prototype was made raises a question about its intended purpose. It was made more than a year after Jefferson Allen's "Plane" Patent No. 721,771 of March 3, 1903, but before the cast iron bodied Stanley No. 340 furring plane was marketed in 1905 (Figure 5) [5]. Was this intended to be a quick and dirty prototype

of the No. 340 or did Stanley consider making a transitional furring plane. If the latter, one suspects that the time of consideration must have been very brief because the wood sole of the plane with its small bearing surfaces near the mouth and heel would have worn away very quickly when used on rough lumber.

Figure 5 Stanley No 340 furring plane

It should be noted that the transitional prototype furring plane and the production No. 340 plane resemble the plane shown in Allen's patent (Figure 6) only in broad concept. The patent states "This invention has for its object the production of a novel plane in which the cutting edge of the plane-iron is situated some distance below the sole of the stock, whereby the plane may operate upon portions of the surface to be planed which are below the level of the higher portions thereof.… [S]ince the sole of the plane is above the level of the surface being operated upon it is possible to plane or smooth the depressed portions in the surface.… My improved plane is especially useful in such operations as smoothing up the boards of a floor.… My improvement is of such a character that it may be applied to any type of plane."

The primary feature of the plane is "a gage rib [6 in Figure 6] which extends across the sole thereof adjacent the mouth through which the cutting edge of the plane-iron projects. Preferably this gage-rib will be constructed to be detachably secured to the plane, so that the plane can be used with or without it, as desired."

The plane also features a detachable nose piece (nose-plate) (8 in Figure 6) and a rocking support toward the rear of the body (13 in Figure 6): "I have herein illustrated said rib as being formed integral with a nose-piece 8, which is detachably secured to the front end of the plane, whereby said nose-plate and rib may be removed whenever it is desired to use the plane in the ordinary [w]ay.… I will also

preferably provide the heel of the plane with a detachable half round or semispherical projection 13 to form a sort of rocking support for the plane when my improvements are applied thereto. This rocking support provides means whereby the plane may be regulated slightly to better accommodate it to uneven surfaces."

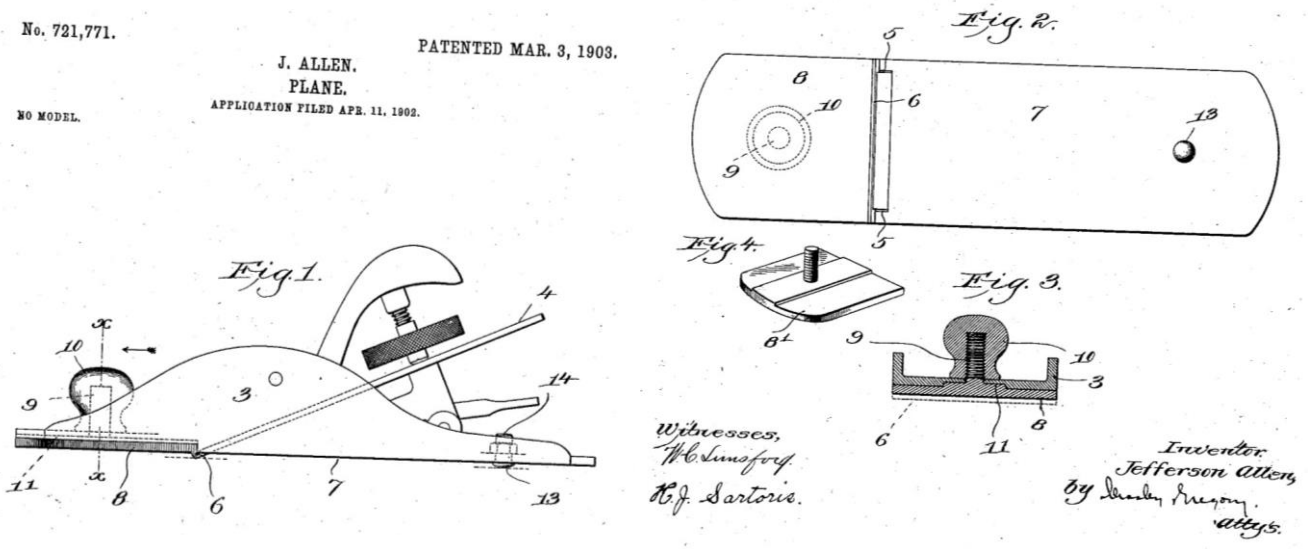
No. 721,771.
PATENTED MAR. 3, 1903.
J. ALLEN.
PLANE.
APPLICATION FILED APR. 11, 1902.
NO MODEL.
Fig. 1.
Fig. 2.
Fig. 3.
Fig. 4.
Witnesses,
H. Sinsfort
H. J. Sartoris.
Inventor.
Jefferson Allen,
by Munn & Co.
attys.

Figure 6 Jefferson Allen's "Plane" Patent No. 721,771

The Model Shop prototype furring plane (Figure 1) and the production No. 340 furring plane (Figure 5) resemble each other closely in concept and design and are a great simplification of the rather complicated design described in Allen's patent. Allen promotes his plane as "especially useful in such operations as smoothing up the boards of a floor" while Stanley recommends the No. 340 plane "[f]or preparing lumber as it comes roughly sawed from the mill. The construction is such that it will remove the fur, grit, dirt, etc., and in fact "clean up" the surface and get it ready for the bench plane quicker than any other hand tool." [6]

If you have additional information or comments about this or other Stanley Model Shop prototypes, please contact me at jamesrgillis5@gmail.com or reply to this blog. I look forward to hearing from you.

References

[1] C. Blanchard, "The Stanley Model Shop or Barrel Days," *Fine Tool Journal,* vol. 50, pp. 22-23, Fall 2000.

[2] Stanley Rule and Level Company Catalogue No. 26, August, 1900.

[3] J. Walter, Antique & Collectible Stanley Tools, Guide to Identity & Value, Marietta, Ohio: The Tool Merchant, 1996, p. 806.

[4] R. K. Smith, Patented Transitional & Metallic Planes in America--Vol. II, Athol, MA: Roger K. Smith, 1992, pp. 224-229.

[5] J. Walter, Antique & Collectible Stanley Tools, Guide to Identity & Value, Marietta, Ohio: The Tool Merchant, 1996, pp. 457, 809.

[6] Stanley Tools Catalogue No. 110, 1911, p. 38.