UNION MFG. CO.

NEW BRITAIN, CONN., U.S.A.

TYPE 1 FEATURE STUDY

Comparison of a No. 2 and No. 4

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INTRODUCTION: TYPE 1 FEATURE STUDY

As tool collectors, we collect things that we like. Some collect tools that have a certain function, some collect tools from a specific era, some just buy any old tool they like the esthetic properties of, but most collectors focus specifically on a Brand or Brands they feel are important. The Brand collectors are likely the most common of all collectors. For Brand collectors the most important tools are the earliest made tools. There are many reasons for this. The earliest tools not only shape the future tools the manufacturer produces, they give some insight as to where the company came from at its root. These tools are also typically the scarcest of the various versions of any given tool. This can likely be attributed to the company testing out an unknown market or the company being cautious not to over produce something that may not sell well. The designers and engineers are also unfamiliar with that specific type of tool as well and are working towards the all-important lean manufacturing goal of any mass production tool. This goal is very important to the company's profit and loss statement. A big part of the profit margins are to only produce as many tools as would likely sell. In the case of a brand new line the setting up of the machines and organizing of the work force tend to lead to a smaller production runs out of the gate due to the learning curve involved with a new product line. This leads to fewer numbers of tools that would likely survive to present day, thus a scarcer tool. Scarcity makes tools more desirable for any collector.

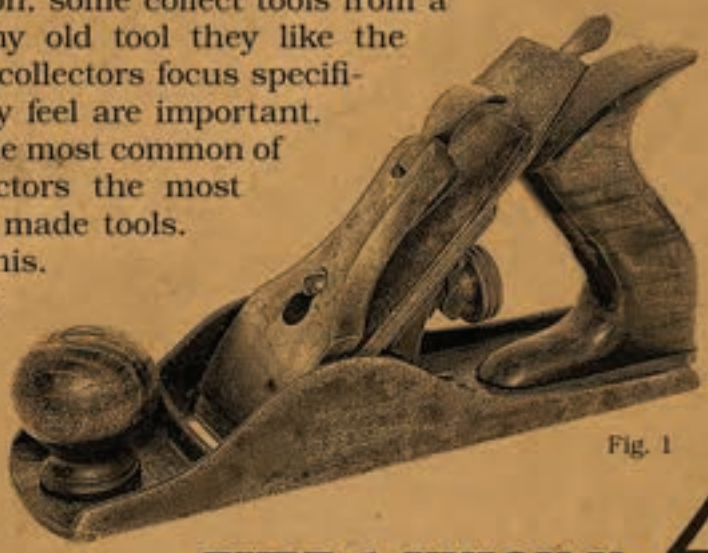


Fig. 1

TYPE 1 UNION No. 4

The earliest examples of a tool are typically referred to as a "Type 1" or first production. Some were made in larger numbers like Millers Falls others were made in very small numbers like Union or Ohio. So how do we tell the volume of production without seeing the manufacturers original production reports? We look at the number of known examples that have been found by dealers and collectors. The more examples that have been located in comparison to the other manufacturer's production from the same Type will paint a fuzzy picture of roughly how scarce they are for that Type. Using the examples above as an example we can assume Millers Falls produced a much larger run of the Type 1 No 9 for example versus say a Type 1 No 4 Union or a Type 1 No 04 Ohio. We make this educated estimation based on the number that have been available in the market or the number currently in collections. This is not a perfect science but it gives enough information to paint a fairly detailed picture of the production numbers based on the data provided.

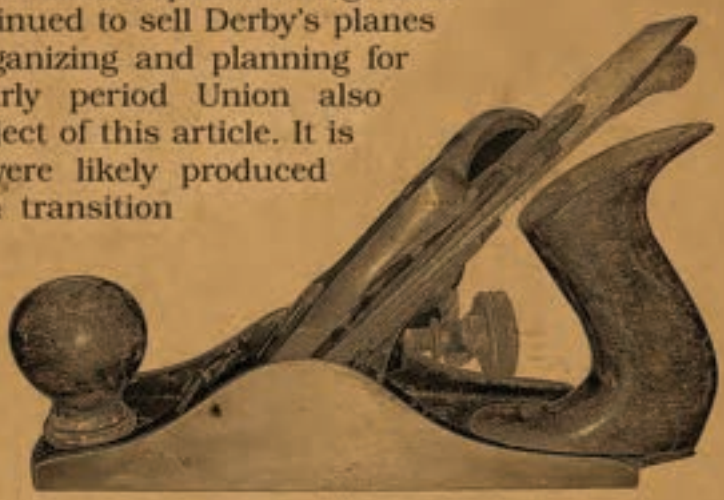
INTRODUCTION: TYPE 1 FEATURE STUDY (cont'd)

In order to fully understand the Type 1 Union planes you'd have to have some background on the company and how they came about making planes in the first place. This historical information explains how they became a plane maker and why they took the risks they took to produce planes bearing their namesake.

Union Manufacturing Company in the form we are studying was founded on August 30, 1866 in New Britain, CT. Multiple companies formed the company that would be known as "Union Manufacturing Company", which was appropriately named "Union" because it was effectively a Union of those companies. The formation of Union Manufacturing Company was a support Foundry and Machine Shop. Union Mfg manufactured a vast number of products. Their offerings ranged from everyday use tools such as hoists to much more complex and higher tolerance requirement tools like Lathe Chucks and Planes. They must have hired only the best foundry workers and machinists because they were always well known for the quality of castings and machine work they did. The early Union Mfg Lathe Chucks which were the original Skinner Chucks were some of the best available at the time. At first the company manufactured various products and did not get too involved with the production of planes. The first record of them making planes was in the 1880's according the City of New Britain's historical archives. It's unknown at this time who they were manufacturing planes for since there is no evidence that they offered planes bearing their name until 1898-1899. Given their geographic location in New Britain, similarities to other makers' plane offerings, and some recently uncovered evidence, assumptions can be made but that's for another article at another time.

So with almost 20 years of plane manufacturing experience Union Manufacturing Company purchased the Derby Plane Company, which was the reformulation of the Birmingham Plane Company. The Birmingham Plane Company had suffered greatly from financial woes and was at this point not a very well made product. Given Union's experience, reputation and financial strength they were easily in a good position to acquire the flailing company.

As with most corporate acquisitions Union acquired a large back stock of parts from Derby and continued to sell Derby's planes under the B-Plane name while organizing and planning for future products. During this early period Union also produced the plane that is the subject of this article. It is thought that these two planes were likely produced during the same time period as a transition towards their own independent product that would be unique to their production line.

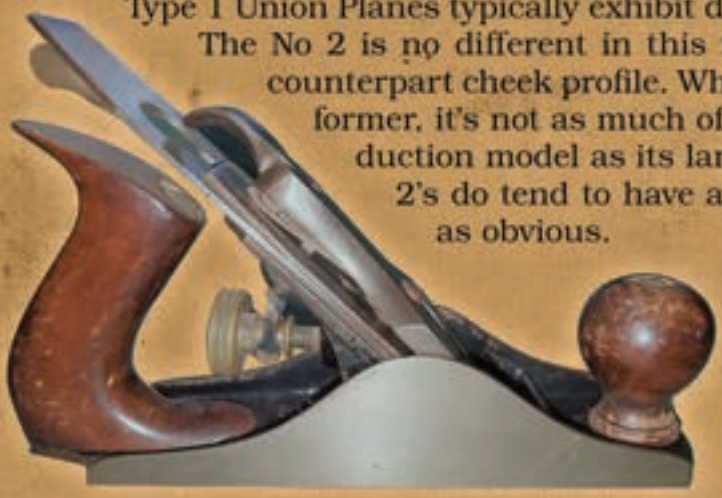


TYPE 1 UNION No. 2

The first offering of the Type 1 Union Bench plane was in a publication that can be dated to 1898-1899, which would be the basis of the assumed start date of production. They were discontinued around 1902 just prior to Union's release of what would be considered a Type 2 Union. The Type 2 Union planes would bear some of the same features that can be found in the 1903 X-Plane patent paperwork. It is likely the Type 1 Union Bench planes are much more difficult to find because of the over abundance of the leftover Derby B-Plane parts Union acquired during their buyout of Derby.

The following is a Feature Study of the Type 1 Union Bench Planes. You will see the features of the Type 1 Union No 2 and the Type 1 Union No 4. The No 2 is included in the study because No 2's typically don't follow the normal Typing structure and are typically typed separately. In this case there are more similarities than you would typically find when comparing a typical No 4 and No 2 of the same era. At the time of this article's writing, the authors are only aware of a single example of a Type 1 No. 4 and two Type 1 No. 2's. The goal of this study is to encourage others to find more examples of these extremely scarce versions of the Union bench plane line so that a more thorough understanding can be had.

(Cheek Shape) No 2



Type 1 Union Planes typically exhibit details carried over from the B-Plane. The No 2 is no different in this regard. It matches it's Birmingham counterpart cheek profile. While it matches the cheek profile of its former, it's not as much of a drastic change from the first production model as its larger counterparts. The later Type No 2's do tend to have a bit higher cheek overall but its not as obvious.

No. 2

(Cheek Shape) No 4

Type 1 No 4's are very different from the later production types in that they have a much lower rail in the front and rear. This attribute can easily be traced back to the Birmingham heritage these planes are born of and are identical to a Birmingham standard size bench plane. This attribute was carried over into the type 2's, so it's not unique to a Type 1 or an immediate identifier of a type one but it's definitely a big help in spotting an earlier Union plane.

No. 4

Fig. 1

UNION No. 2

The Type 1 will feature a bed marking behind the frog that sits atop a raised portion in the sole. This is also typical of many early Types of this size. The Type 1 Union No 2 (Fig. 1) also features a Birmingham styled tote with a longer than average horn. The extra length of the horn isn't as prominent as on the larger size bench planes of the same type.

UNION No. 4

The Type 1 No 4 (Fig . 2) features a raised Union logo behind the frog directly on the bed surface and is not raised up like the No 2.The tote on the No 4 also features a Birmingham tote not a similar style to Birmingham but the same exact tote found on Birmingham No 4's. This includes the faux rosewood striping that was painted on at the factory. The Birmingham totes are one of the biggest giveaways in identification of this rare plane. These totes are typically boxy in shape, have a longer horn and are relatively thick in comparison of other totes of the era.

Fig. 2

Fig. 3

Fig. 4

Fig. 3 The Type 1 No 2 carries a lot of features that can be traced back to Birmingham planes of the same size including the balloon shaped knob with a single pronounced bead at the base. These knobs are a little larger than other manufactures and are of a unique shape. This knob design is however not unique to a Type 1 No 2 but is unique to an earlier Union No 2 in general and is commonly found on Type 2's as well. The lever cap is also match for the Birmingham No 2.

Fig. 4 The Type 1 Union No 4 shares a lot of the characteristics of a Birmingham No 4 from the front including the short Ball-Like knob that features a pronounced single bead at the base. This knob is only found on the very earliest Union Planes and can be found on Type 1's and Type 2a's. By the first emergence of the Type 2b the knob would retain the same bead but the knob would be much more pronounced in size dwarfing the earlier knob in width.

Fig. 5

Fig. 6

Fig. 5 - The Type 1 Union No 2 will match the look of a Birmingham from the back and will feature a rounded and sweeping tote shape that is not unique to the Type

Fig. 6 - The Type 1 Union No 4 could easily be mistaken for a Birmingham from the back with the tote shape being identical (this example was originally described as a Birmingham by its seller). The tote shape is more of a blocky shape, a long horn and features the faux rosewood graining that was painted on from the factory originally found on Birmingham standard size bench planes.

(Authors Note: Notice the twist direction on these Type 1 examples is the opposite direction. Not enough of these planes have been located to render a real opinion as to why they are twisted the way they are or for that matter if that twist is a characteristic of the Type 1's and their perspective sizes. This may or may not be unique to a Type 1 Union Bench Plane.)

Fig. 7

Fig. 8

Fig. 7 - The Type 1 Union No 2 chip breaker is another carry over from Birmingham and was used only on the earliest Union Made No 2's. This design is similar to the Stanley crimped and rolled hump at the area closest to the cutter edge. This is unique to the No 2 size only.

Fig. 8 - The Type 1 Union No 4 chip breaker is the same design that was used later by Union on the X Series planes and is not unique to a Type 1. It is constructed of a single piece of sheet steel with a slight arch bend at the end closest to the cutter's edge. The chip breaker edge tapers as it curves towards the end where it meets the iron.

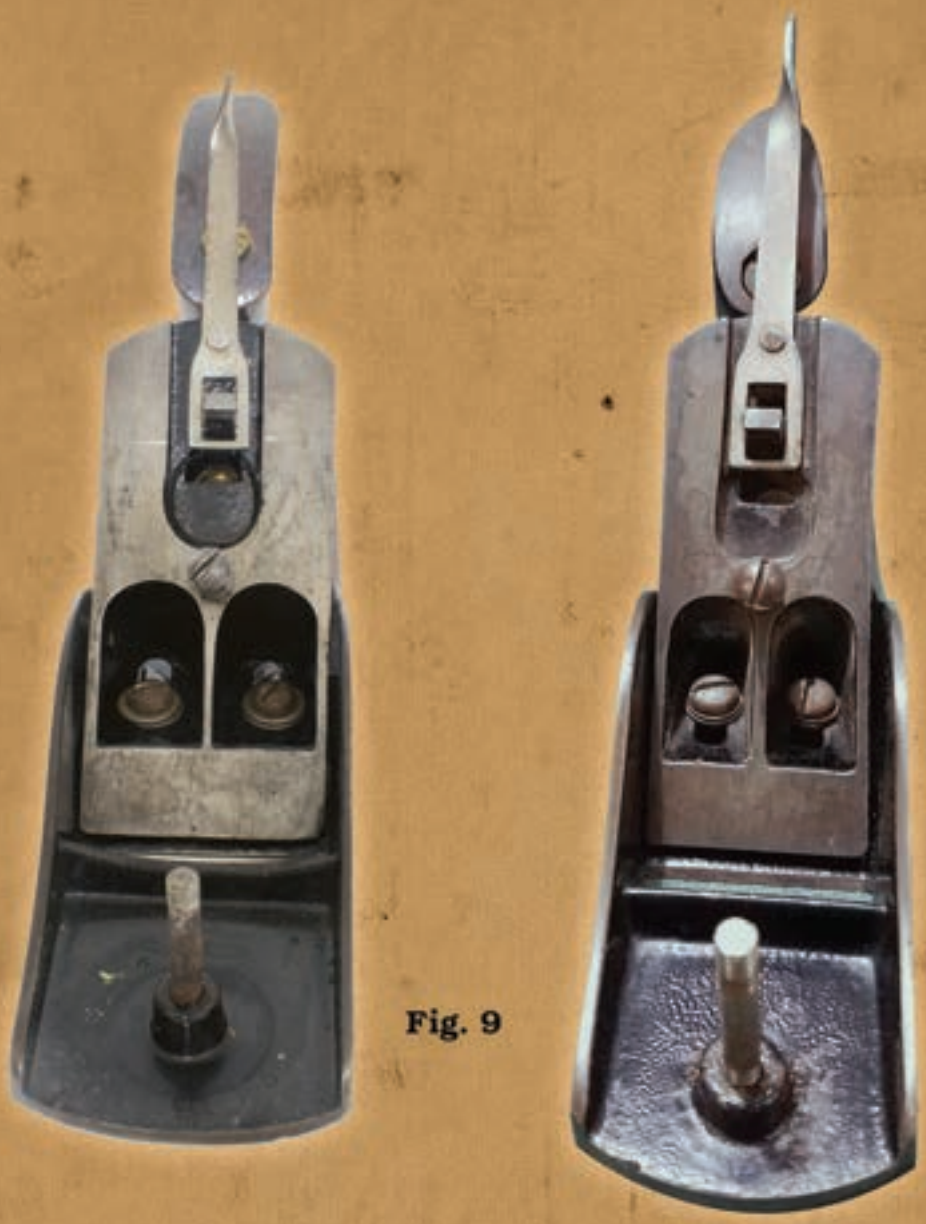


Fig. 9

Fig. 9 - All Type 1 Union Planes feature a Mosher Patent lateral, which is unique to only the Type 1 Unions. This lateral was a direct carry over from Birmingham. In fact the Type 1 Unions carry the patent date on the irons below the Arched Union Logo. Also notice the frog has a rounded top screw and a double washer configuration to secure it to the sole.

Fig. 10

Fig 10 -

The sole of a Type 1 Union are like a Birmingham of the same size and are carried on well into later production. The Type 1 Union soles are identical in length and width as the Birmingham they are modeled after.

Fig. 11

Fig 11 - The bed marking of a Type 1 Union is typical of all the earlier Unions. The No 2 has a standard frog seat similar to an earlier Birmingham that is carried on well into later production remaining unchanged until much later. The No 4 has a "Deep V" Frog seat that is very common amongst early No 4's. The only major difference to note is the Type 1 No 4 has a bed marking that is not on a raised area, it is marked directly on the bed, with only the lettering raised.

Authors Note: The Birmingham No 2 has a frog seat that has been jappaned over whereas the Type 1 Union No 2 has a machined surface on the frog seat.

MAIN: TYPE 1 FEATURE STUDY

All Type 1 Union Planes carry over Birmingham features but the frog itself is a Birmingham frog. Features of the Birmingham frog include the single ribbed sides, the Mosher Patent lateral adjuster and the lack of a milled groove at the front of the frog bottom where it meets the frog feet, which is typical of later Union production planes.

The knurled depth adjusters are both identical on the Type 1 No 2 and No 4. They both feature 3 knurled rings. This feature is unique on the Type 1 No 2 only with the Birmingham's having 2 rings and the later Type 2 and forward also only having 2 rings. While the 3 rings are unique to only the Type 1 No 2, it's the standard for the No 4 and is found on both Birmingham's and later post Type 1 No 4's.

The single most difficult part to find on a Type 1 Union is the proper iron with only a small handful ever located they are the one thing that cannot be replaced. To make matters worse none of the examples that have been found were stamped very deep with most being faint at best. The proper Arched Logo will have the "UNION" name arched over a "PAT" underscored by the patent date "OCT 22, 1889", which of course refers to George D. Mosher's US Patent Number 413300. This is the patent for the Lateral Adjuster. Union would later mark another patent date on their Type 1 Union X Series Planes.

Authors Note: Great Care must be exercised in cleaning the area where the logo is stamped. You could easily sand or abrade the Arched Logo off without even realizing it.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