

# Early Allen Firearms

by Harold R. Mouillesseaux



It is my pleasure to contribute this article on the subject of my collecting specialty, Allen Firearms.

Miami may be an appropriate place to talk about the early Allen firearms. A few of the early ones came here during the war against the Seminoles. At about the time Fort Dallas was being established here, Ethan Allen entered the world of firearms at Grafton, Massachusetts. From that time until his death in 1871, just a year after Miami was founded, Allen manufactured just about every type of civilian gun. I would like to talk about all of them, but with any detail that would be too much for one sitting. Instead, I'll focus on two related exposures.

First, I'd like to devote a little time to the significance of the Allen Pepperbox as it bears on American history. Secondly, I'll review the early stages of Allen production. I hope these areas will be of interest generally, and perhaps provide a slightly wider appreciation for a somewhat neglected line of firearms.

If 'NEGLECTED' is an accurate word for the Allen line, it is not because of any deficiency in the firearms per se. Rather, it stems from an overall lack of an image. An image which would associate and stimulate the imagination as do the words, Colt and Winchester. These names call forth popular mental pictures. The name Allen does not.

There are basic reasons why this is so. Most collectors of nineteenth century firearms are attracted by one of three conditions.

1. Military significance.
2. Association with specific historical events.
3. Artistic conformation.

Without a rather detailed study of the period, none of these conditions seem to fit Allen firearms. This lack of direct association has diminished their image for many. This is probably a very natural error. We are all prone to forget events which have no clear-cut ending. However, immigration to America in the nineteenth century was a great historical event... it had a great deal to do with Allen's success. It should have established him among the great American gunmakers.

No American gunmaker of his time manufactured a more diverse line of firearms. During the percussion era he produced the Underhammer, the Bar, the Box-lock and the Straight-away single-shot pistols as well as the Pepperbox, the Transitional revolver, the side- and center-hammer Revolvers. He made Target pistols, with and without detachable stocks. His rifles were both single and double, revolving cylinder and breech loading. His shotguns, single, double and combination, plus a Whaling gun. At the beginning of the cartridge era he pioneered not only in the manufacture of fixed ammunition but he also developed the first machinery to form and head the metallic case. And although he stumbled a bit on the

Rollin White patent with his cartridge revolvers, he produced thousands before he was forced to concentrate on rifles, shotguns and single-shot pistols.

The firm names, Allen & Thurber, Allen & Thurber & Co., Allen & Wheelock, and Ethan Allen & Co., plus the three locations where they did business, Grafton, Massachusetts, then Norwich, Connecticut, and finally at Worcester, Massachusetts, all tend to confuse the issue. This confusion is typified by a good friend... a gun collector. He repeatedly asks how I'm doing with my EVANS research!

So, compared to the more familiar lines, Allen firearms lack image. They lack a mood or charisma. Without an inference to the more familiar, the big name, the most desirable is often created by reducing history and fact to popular myths and fantasies. We have all become addicted to this parody as perfected by the radio, by magazines, movies and television. We seem to delight in depriving ourselves of reality. It's been going on so long, we scarcely noticed it happening. So now, please recognize and pardon my use of the very process I criticize, as I try and create a little romance for the Allen line.

Usually when Allen is mentioned, it results in recall of a particular type of firearm, the Pepperbox. This limited recall is quite understandable. The Pepperbox pistol outnumbered any other single Allen firearm. It was the primary effort of the several partnerships for over twenty of their thirty-four years of operation. It received wide acceptance because of its defensive potential at a time in history when personal defense was a sixth sense. It received some publicity, if not distortion by Mark Twain. It was often the subject of Western literature telling the Forty-niners' story. Moreover, the Pepperbox pistol was the fulfillment of man's passion for a multi-shot firearm which has been evident from the beginning of firearms.

However, more compelling than any publicity or fulfillment of needs is their unique timing in American history. Without a Madison Avenue to synthesize its popularity, the Pepperbox generated its own, by

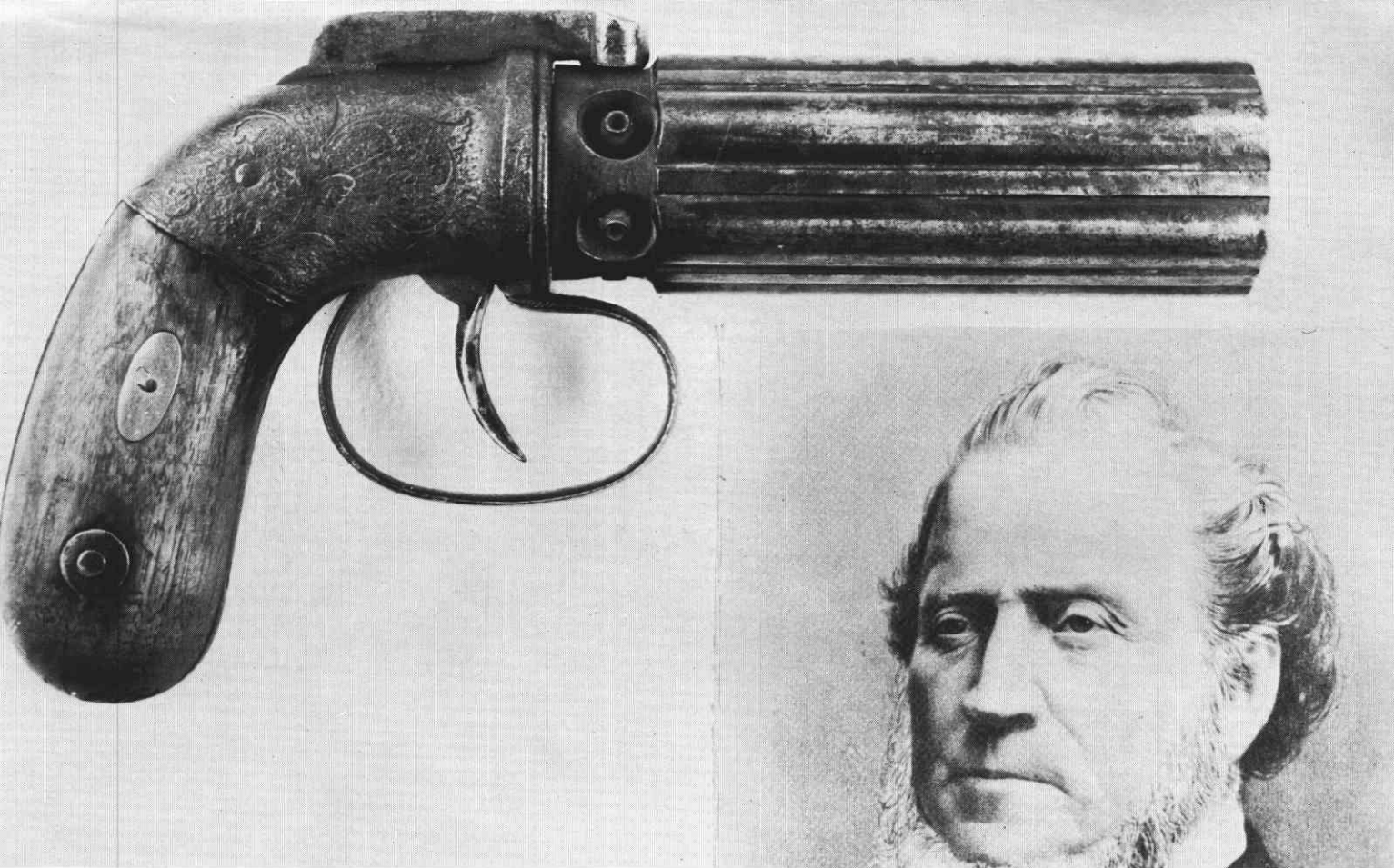


Figure 1  
Brigham Young's Allen Pepperbox.  
Courtesy Brother Jacobsen, President,  
Temple Square.

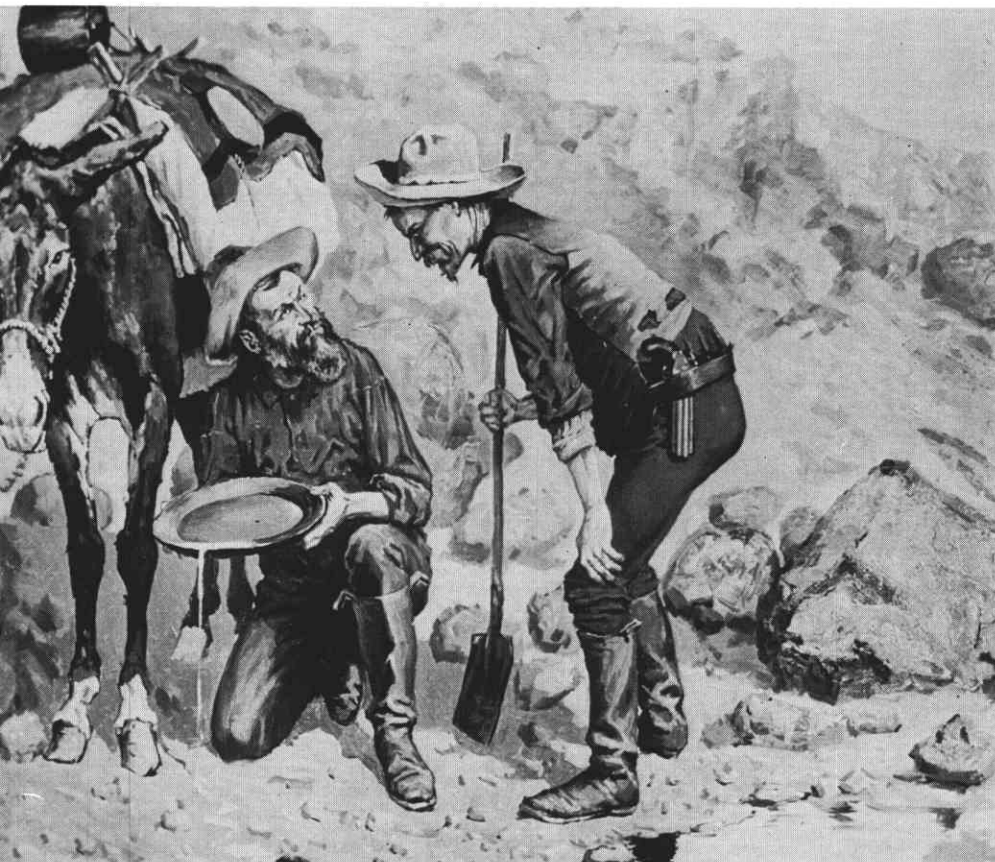


Figure 2  
"Miners Prospecting for Gold" by  
Fredric Remington. Courtesy Edward  
Eberstadt & Sons

**LIFE AND PROPERTY PRESERVERS,**

FOR HOUSEKEEPERS, TRAVELLERS, CAPTAINS, AND OTHERS.

**PATENT SELF-COCKING & SELF-REVOLVING POCKET PISTOLS!!**



**The Greatest Modern Improvement in Fire-Arms!!!**

This Pistol can be discharged six times with almost the rapidity of thought. The Pistol cocks, the barrel revolves and discharges, merely by pulling the trigger; not requiring to be cocked as the common Pistol, they can be fired the moment they are taken from the pocket with one hand only. They are no larger than an ordinary Pocket Pistol, and, weighing but 13 ounces, can be carried in the pocket without the least inconvenience. The locks and the whole Pistol are not so liable to get out of order as the common Pistol. Gentlemen are invited to call at the store of the Advertiser and examine the same, as their simplicity, perfect safety, and non-liability to get out of order, will certainly recommend them over all others. For Travellers, Housekeepers, Captains, and Planters, they are an indispensable article, as persons, both male and female, can with this Pistol protect their lives and property, if assailed by several persons.

FOR SALE, WHOLESALE AND RETAIL, BY  
**J. G. BOLEN, 104 Broadway,**  
 BETWEEN WALL AND FINE STREETS, NEW-YORK.

Figure 4  
 Shieldless Pepperbox on Bolen advertisement placed in gun case

its then phenomenal firepower. By its ability to meet the inherent needs and desires of the 1830's, '40's and '50's, to the exclusion of similar firearms.

Without hesitation, I'll argue the Pepperbox pistol as improved by Ethan Allen became the most important defensive civilian side arm in America during this period. I'm emphasizing the civilian use, but this is not to exclude considerable military exposure. As the fastest shooting hand gun of its day, many were individually purchased for use by state militia. They are reported in the Seminole War and other Indian engagements, in the Mexican War, and a few in the War between the States. Fully recognizing its obvious military shortcomings, I emphasize its contribution to the civilian sector, especially to the pioneering immigrants as they pushed from the eastern seaports to the central and far West.

Brigham Young carried an early model while leading his followers to Salt Lake. His Allen is still there. In the Museum at Temple Square (See Figure 1). Yes, it's slightly beat, but as you look, think what this one might tell... if it could talk!

Figure 2 is a classic by Frederic Remington. Notice the Dragoon. It's just as conspicuous as the other prospecting items. Standard equipment is indicated, I am sure. According to legend, these dragoons were frequently the Forty-niners' only protection against the claim jumper, rattlesnakes, and thieves.

In addition to these travelers, the 'stay at homes' and the remote 'homesteaders' were equally reassured with a loaded Allen on the kitchen shelf.

Mr. Henry Stewart, writing in the Serven volume, *The Collecting of Guns*, points out the value of studying advertisements placed in gun cases. His advice is worth heeding. Let's look at one, Figure 3.

J. G. Bolen, a New York engraver and printer, moved from 66 Green Street to 104 Broadway during 1840 according to city directories of the period. His listing continues at this address until 1858. This

label in Spanish is probably later than the English version. You'll note it displays the shielded Pepperbox. This one is shieldless (Figure 4).

By the address we know they are both subsequent to 1840. This was an era when this Allen was in everyday use as can be seen from the copy: "LIFE AND PROPERTY PRESERVERS, for Housekeepers, Travelers, Captains, and Others, Patent Self-Cocking & Self Revolving Pocket Pistols! The Greatest Modern Improvement in Fire-Arms!!! This Pistol can be discharged six times with almost the rapidity of thought. The Pistol cocks, the barrel revolves and discharges, merely by pulling the trigger; not requiring to be cocked as the common pistol, they can be fired the moment they are taken from the pocket with one hand only. They are no larger than the ordinary Pocket Pistol, and weighing only 13 ounces, can be

Figure 3  
 Bolen advertisement of Shielded Pepperbox. Courtesy Paul Wellborn





carried in the pocket without the least inconvenience. The locks and the whole Pistol are not so liable to get out of order as the common pistol. Gentlemen are invited to call at the store of the Advertiser and examine the same, as their simplicity, perfect safety, and non-liability to get out of order, will certainly recommend them overall others.

For Travelers, Housekeepers, Captains and Planters, they are an indispensable article, as persons, both male and female, can with this Pistol protect their lives and property if attacked by several persons.”

Tremendous copy! Yes, tremendous gun. Did you get an image? . . . Holding off the thugs with one hand! Thirteen ounces of spitting fire-power! I can almost hear the creaking stage, the pursuing highwaymen. I see the isolated planter . . . the resplendent captain, quelling the mutiny . . . Who's got the gun? The good guys, of course. The gentlemen, the captains, planters and the defenseless female.

Reading between the lines of this advertisement, the whole unsophisticated national scene is revealed. But I doubt with our sophistication we can fully realize how tremendously appealing this gun was to people living in 1840.

We remember things and our emotions are stirred by products which relate successfully with their environmental time slot. The cotton gin, the reaper and the first Ford provoke positive reactions in our mind. Timing was their success ingredient. So it was for Allen's Pepperbox.

A most significant factor of the American environment between 1830 and 1850 was immigration. In 1838 only 39,000 immigrants came here. By 1840, it was 105,000, and by 1850 the annual rate was well over 350,000.

Many of these newcomers moved inland. Looking for land, looking for a living. Compared to where they had come from this country was a vast and terrifying unknown. Travel, by any means, was arduous, tomorrow forbidding, the ultimate, a matter of guts! Carrying a pistol was a must.

Merchandising firearms in this climate was dependent only on having the item readily available at a price that was within the means of the customer.

Allen's approach, knowing or otherwise, related well to this environment. Being the producer, he was on top of production costs and profit margins. His distribution policy of consigning into retail outlets of every type made them as available as his production would permit. Gradually, as production increased, his agents were expanded from Maine to Louisiana, to the important jumping-off places for the West.

Samuel Colt began manufacturing his percussion revolver a year ahead of Allen. By contrast, his approach to merchandising was to seek favor with the affluent few, hoping to secure large military contracts. He was pressuring at a time when there were no urgent war needs and when there was only slight inclination within the military to convert to percussion ignition.

Although Colt's product was superior to Allen's, his timing and merchandising methods did not relate to the realities of his day. He appears to have been infrequently at the manufacturing site in Paterson, N.J., and to have had little or no direct control of production, distribution, or costs. By 1842, his operation was bankrupt.

Without fanfare, Allen concentrated on producing the only multi-shot pistol generally available. By the time Colt re-entered the civilian market, Allen's product was solidly entrenched in the minds of those requiring life and property protection. His gradual expansion into more complex firearms was simply a matter of presenting his new wares into established distributors' hands. His products were solid and timely. He became a wealthy man.

Verified facts about Allen and his 'relative' partner's personal lives are meager and obscure. Allen's twenty-eight U.S. patents, including the reissues, attests to an active mind and an intense concentration on business. Legal records, mostly hand written, are often faded and indistinct. Frequently they are confusing, yet a number of facts are established, probabilities suggested.

Through my interest and the searching, I've caught an image. My image is biased and far from the popular ones. I see Allen's Pepperbox as the "pistol that preserved the pioneer" . . . not as Captain Walker saw it in 1847, when he complained to Colt that nine out of ten in Washington did not know what a Colt pistol was. Although he explained the difference between a Colt and "the six-barrel pop gun that was in such general use," they were still ignorant on the subject.

So I reason, my image is just. The Colt name is not revered for the Paterson model. There was no such thing as a Winchester until the middle 1860's. Just suppose the Colts and the Winchesters, I mean the people, not the guns, had not had the great protection of Allen's Pepperbox. Suppose a lot of people hadn't lived to win the West, to produce the Ford, or to fight the Little Big Horn! Yes, suppose more personally that our very own forefathers had not had the Pepperbox. Where might you and I be?

With this last suppose, I'll leave the fantasy and go to facts. In April of 1833, Allen and his father, Nathaniel, bought the Moses Adams farm at North Grafton, Massachusetts, then known as New England Village. This property consisted of approximately 135 acres, and with buildings was purchased for \$5000. The Allens paid \$354.42 down, and Adams assumed the mortgage. At this time, Ethan was engaged in the manufacture of cutlery used in the shoemaking industry.

Early biographical references state that Allen at first manufactured the Lambert Cane Gun. When I first read this, I perused every index of firearms, vainly searching for the name Lambert. For several years, I queried collectors and dealers with no helpful result. Finally, during a check of an Index of Patents Granted for the period 1700 to 1847, I found this listing: Roger N. Lambert—Upton, Mass. Rifle

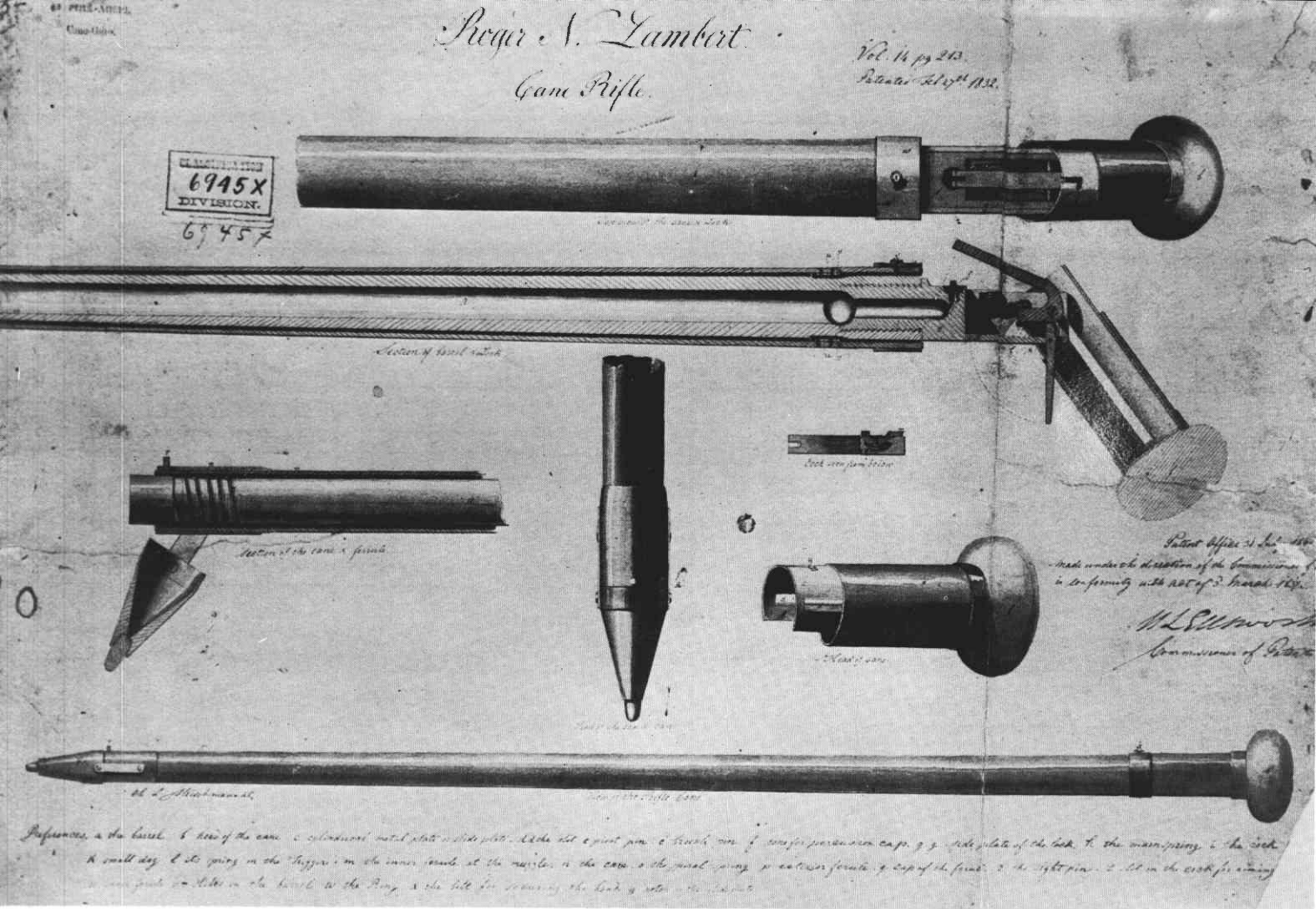


Figure 5  
Robert Lambert Patent Cane Gun.  
Courtesy National Archives

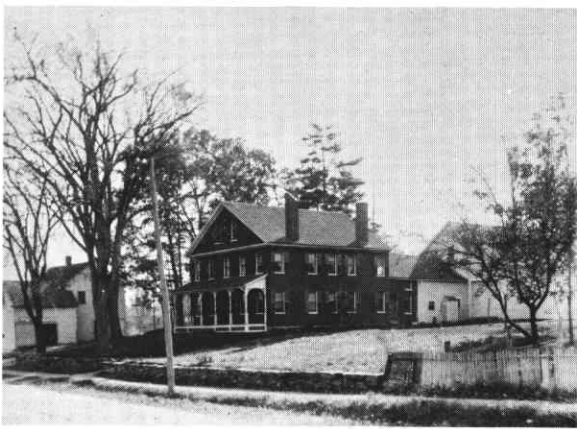


Figure 6  
Allen Shop built during 1833. Photo  
courtesy Mr. and Mrs. Branford Pratt



Cane—Class 19, Page 336, Feb. 27, 1832.

There was nothing further on this at the Patent Office, and they referred me to the National Archives. There they produced what they refer to as a 'Name & Date Patent.' This I believe is classified as a restored patent, and it was suggested it had been salvaged after the Patent Office fire of 1836. In any event, it is illustrated in Figure 5.

With this print I also obtained five pages of handwritten descriptive material which outlines the mechanical features and its operation. By pulling the cane handle backwards and pressing down, the muzzle protecting cover is released by its own weight. This operation also automatically cocks the bar hammer and engages the trigger. Pre-loaded and capped, this innocent looking cane can instantly become a rifle.

If this cane exists today, and if Allen did produce them, they constitute the first and rarest of the Allen guns.

As Upton, Massachusetts is no great distance from Grafton, it seems reasonable to suspect that Doctor Lambert may have interested Ethan in producing his brainchild. It is also reasonable to speculate that this was the separation point between boot cutlery and firearms.

Allen built his own shop for the production of pistols during 1833. The shop still stands (Figure 6). Presently the building shows considerably more wear and neglect. It is believed these pictures were taken about 1905. At that time, it was in use as a grist mill operated by the Pratt Brothers. A brook adjacent to this building was probably dammed at the time the

Figure 8  
Improved lock design of 1837

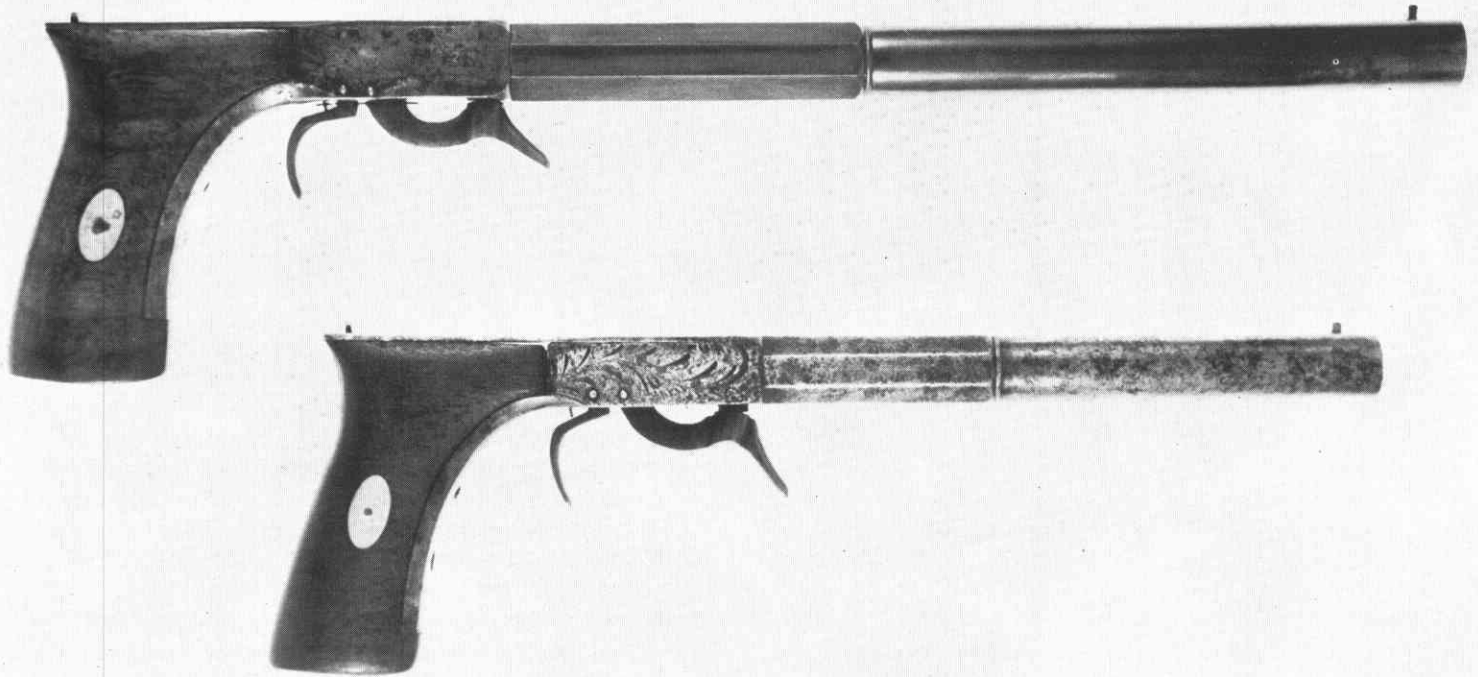
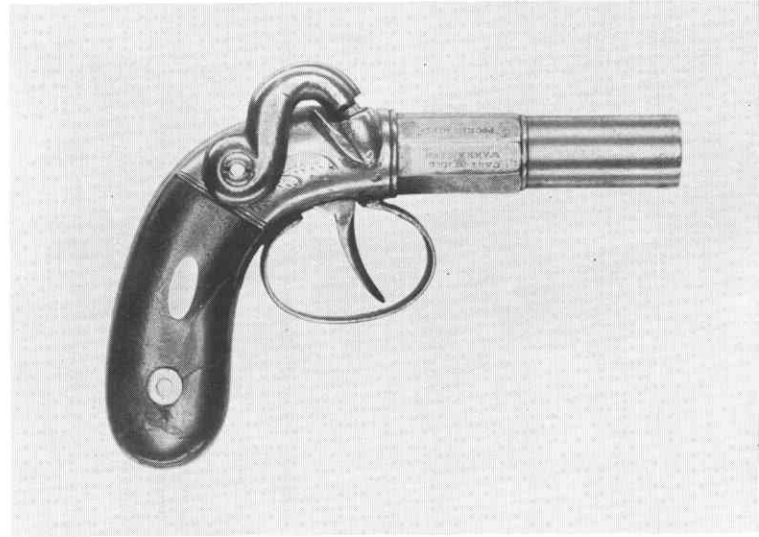


Figure 7  
First Allen Pistols. Courtesy L. P. Bassinger

shop was built as an early town map dated 1831 shows no pond at this point, later maps do.

The waterwheel has long since disappeared, but inspection of Waterville Street immediately below the dam reveals that it is still equipped with two culverts, or arched drains. One large arch takes the flow over the main spillway, and a second, smaller arch a few feet to the east presumably carried off the flow diverted into the waterwheel sluiceway.

I have tried to interest the Grafton and the State Historical Commissions in preserving this building as an important historical site . . . the birthplace of the first practical American Pepperbox pistol. My efforts, so far, have proven two conditions. One, these groups are concerned with projects of far greater appeal, to them, than the Pepperbox. Two, I am apparently an inept salesman.

The first firearm known to have been produced and marked by Allen was the underhammer saw-handle Pocket Rifle (Figure 7). This is not a rifle but a single-shot pistol with a longer than usual barrel. Production of these pistols was among the very first of this type manufactured in this country. It appears that they were produced by Allen in rather sizable quantity. They truly represent an important historical as well as a highly desirable collector's item.

Hand forged, these pistols lack uniformity of exact shape and size. Most usually the markings are: "E. Allen, Grafton Mass., Pocket Rifle, Cast Steel, Warranted," on three lines on the top of the frame. Several other markings are known where these pistols were stamped for specific retailers. One for A. W. Spies, of New York City is marked, "A. W. Spies Mississippi Pocket Rifle."

The rifled barrels range from five and an eighth inches to nine inches: The calibers I've noted were .31, .32, .34, & .44. The earliest models have no engraving on the frame sides, but do have small silver ovals inset on both sides of the one-piece grips. Later production has some engraving as well as the oval inlay.

During October of 1837, Allen applied for a patent on a new and improved method of constructing locks for firearms. The drawing which accompanied the application illustrated the pistol in Figure 8 (Courtesy John Bicknell). This rare single shot was evidently produced in quite limited quantity if surviving pieces are any indication. However, it was in production long enough to have undergone one modification. The main spring of the first issue is fastened to the grip strap with a large headed screw; subsequent production is equipped with a spring clip as a part of the strap casting.

On November 11, 1837, Patent No. 461 was granted to Allen. It provided him with the rights to the feature of progressive firing, by the process of repeatedly squeezing the trigger. There was, of course, no mention of a barrel revolving feature, as the application illustrated a single-shot pistol. We will never know for sure, but I believe Allen had the Pepperbox in mind when he applied for this patent. Perhaps his approach was designed to avoid patent complications

and to conceal his intent. Having grown up in Bellingham, Massachusetts, Ethan no doubt knew the Darling brothers, Benjamin and Barton. Without doubt, he was familiar with their Pepperbox, and their patent of April 1836.

The Darlings have usually been credited with the first American patent for the pepperbox concept. This is not exactly true. The concept was expressed for a long gun as early as 1818, in this country, and about the same time in Europe. Regardless, the Darling Pepperbox did not capture the waiting market. Allen's did. I suggest this may be where we came by the saying about "the better mouse trap."

Between its beginning at Grafton, and its ending at Worcester, there may be at least fifty slightly different Allen Pepperbox pistols. This causes a bit of confusion, if not dismay. I believe it deters many from making detailed studies of the Allen line. I hear complaints that time slotting is too confusing because of the many pieces without makers name, place of manufacture or sequential numbering. This is true, and I do not imply that the Allen specialist is without confusion, without disagreements. Far from it. To become a true Allen collector, you must develop a mental chemistry which will transform dismay into challenge. Otherwise our sanity might not be a matter of speculation.

My arbitrary grouping of the Grafton Pepperbox is: 1. The Dainty Grafton, 2. The Standards, and 3. The Dragoons. This grouping does not suggest a manufacturing sequence. They were at some point all produced concurrently. However, there seems no argument that the Dainty was number one (Figure 9).

This .28 caliber Pepperbox has no subtypes to my knowledge. There are differences because development began at once. It is rather common knowledge that the early Grafton Pepperboxes had removable nipples. What is not so commonly known is that these first nipples did not terminate in the barrel chambers but in the axis of the six-barrel cylinder. This necessitates a right-angle flash hole through the side of the nipple instead of the conventional straight-through type. These nipples were numbered on the bottom so that they could be replaced in the proper sequence. Three different marking methods have been observed: punch marks, file slashes, and finally numerals. Assignment to its particular barrel is determined in clockwise sequence counting from the batch number stamped on the barrel between the nipples. I should qualify this point. There was another way. It was by numbering the barrel chambers at the muzzle. I have seen only one instance of this method and I feel it was quickly abandoned in favor of counting from the barrel batch number.

Development continued on the Dainty at least to the time when removable nipples were discontinued. Probably not much beyond. I know of but one integral nipple Dainty; it was owned by Harry Mann.

Quite early during Dainty production the cylinder rotating mechanism was changed from being activated by the hammer to a more stable arrangement of linking it to the trigger heel. Oddly, Allen did not cover





Figure 9  
The Dainty, Grafton



Figure 11  
Second Group, The Standards, Grafton.  
Courtesy Paul Wellborn

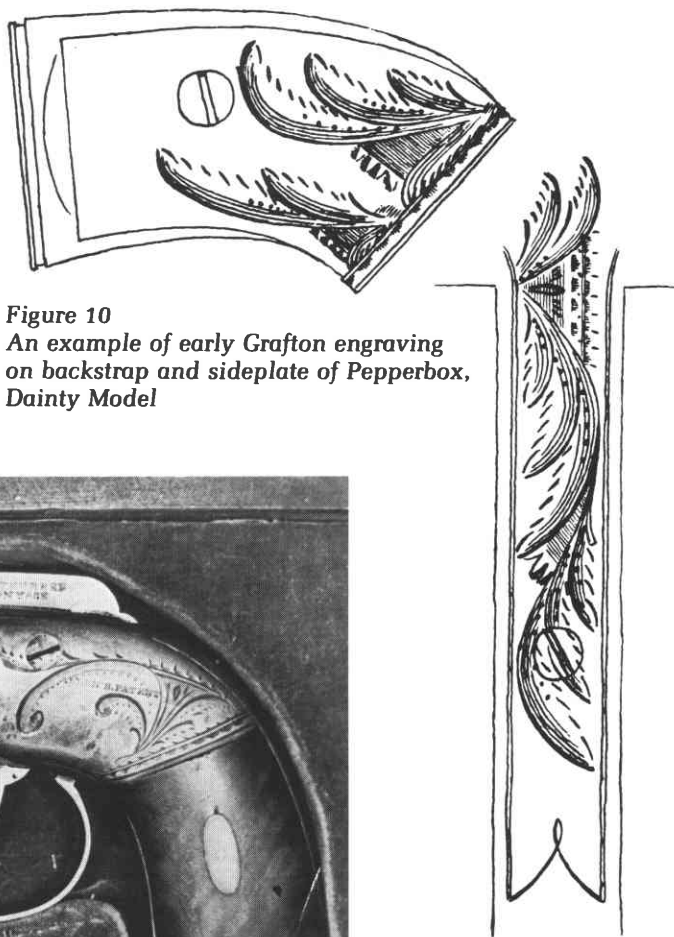


Figure 10  
An example of early Grafton engraving  
on backstrap and sideplate of Pepperbox,  
Dainty Model

Figure 12  
Shielded standard.  
Courtesy Herbert E. Green





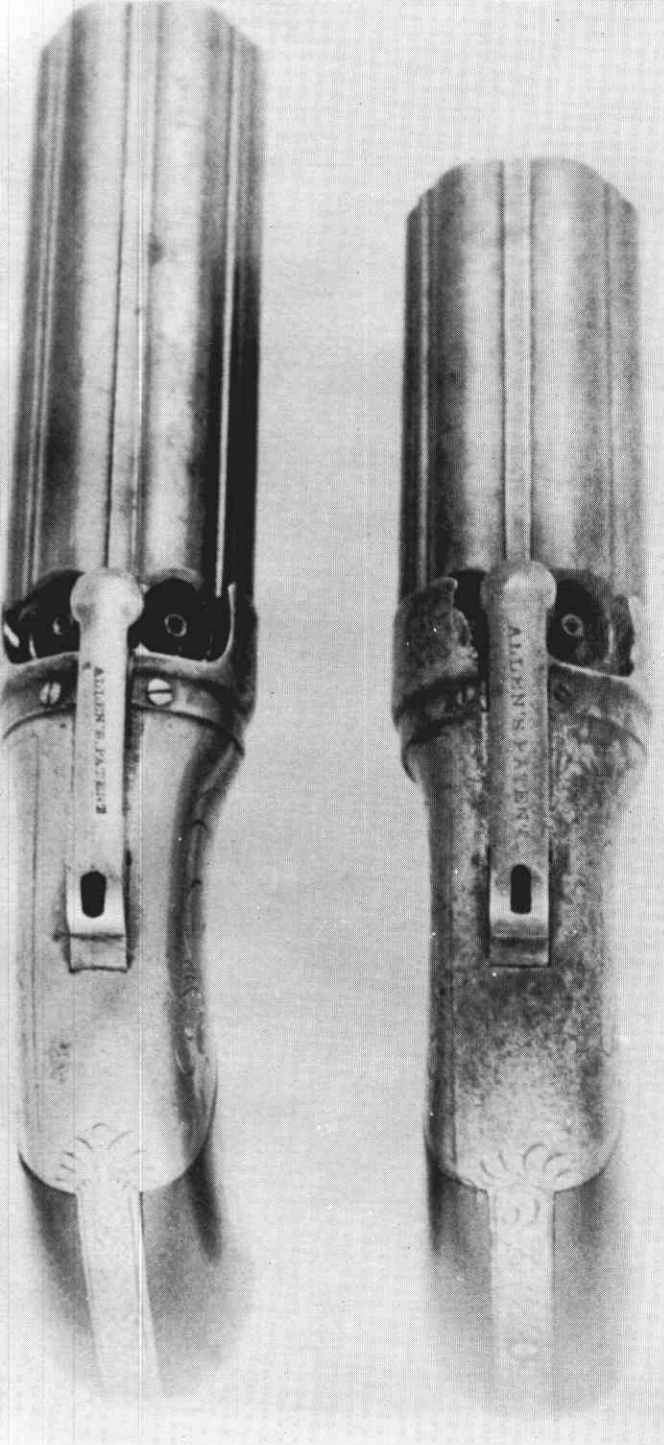


Figure 15  
Slotted hammer. Courtesy Paul Wellborn

this improvement with an amended patent until October of 1843. The reissue to the original 1837 patent was Number 60, issued in January 1844, after Allen & Thurber had moved to Norwich, Connecticut.

Another early improvement was countersinking the muzzle to recess the retaining screw. Still another was the reversal of the rear grip screw. At first they entered from the outside, later on, from the inside.

These modifications help the collector to some extent in making 'early' or 'late' judgements on a particular Dainty. I emphasize "help" because one thing an Allen collector must learn early and well is

Figure 13  
Grafton engraving on sideplate and backstrap

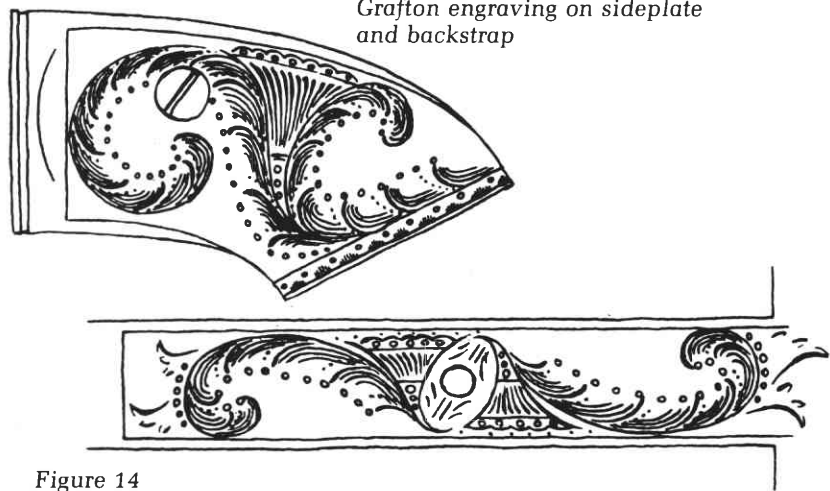


Figure 14  
Backstrap widths



that it is extremely foolish to be dogmatic. Finding one step of development, and deciding vintage by that alone, can be disastrous. For instance, finding the second cylinder rotating mechanism on one piece, we might hastily classify it later than one with the first arrangement. Looking further, we find the first arrangement piece has an inlet barrel screw, the second has a flush screw. It seems wise at this point to say they are contemporary and let it go at that. These contradictions are common throughout the entire Allen line.

Features which I have not seen changed on the Dainty Pepperbox are; the wide backstrap, the sharp angle grip, fluted ribs. I have never seen a Dainty with a nipple shield, grip pins, or equipped with the improved pitman and ratchet, which I will cover

later. Sideplate and backstrap engraving is quite uniform on those I have examined. Here is an example in Figure 10. Note the screw head.

Dainty markings are constant in one respect, on the left side of the bar hammer is stamped, "Allen & Thurber, Grafton Mass," on two lines. "Allen's Patent" is usually stamped on the left sideplate, sometimes upside down, sometimes not at all.

Going to the second group of Grafton Pepperboxes, the Standards, we find the caliber usually increases to approximately .31. The barrel length is extended by about  $\frac{7}{8}$ ", the frames and grips are correspondingly larger. (See Figure 11)

One school has used distinctive names such as "Primitive Slim Jim," "Improved Slim Jim," "Light Shieldless," etc., when referring to the different standard size Pepperbox. These names are further extended into the various subtypes, and all together give the impression of many distinct models. I prefer to group them all as Standards. The variations, subtypes, etc., of course are of major interest. But I look upon them as only subsequent changes which reveal the constant experimentation and improvement which really never ends throughout the life of the Allen Pepperbox.

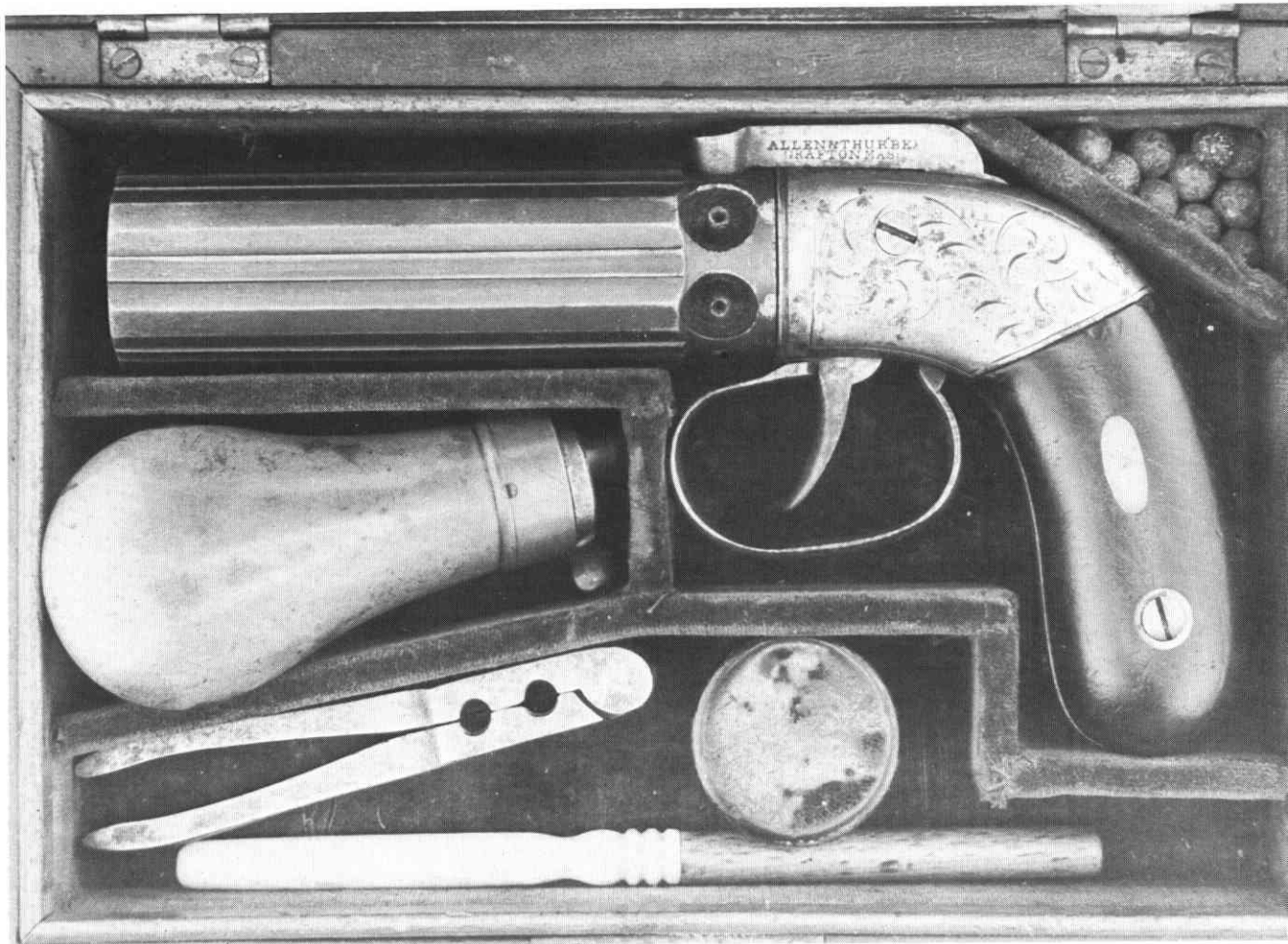
In this group we find the shieldless as shown and then the first shielded type (Figure 12). These early shields are unlike any that follow. They appear to

be rather narrow because of the recessing or bevel at the rear where they attach with screws. I have never seen two with an identical engraving design. However, I have seen relatively few. Introduction of this shield did not signal a complete transition from shieldless to shielded. Many late Grafton and early Norwich pieces will be shieldless.

Sideplate and backstrap engraving on the Grafton Standard is not all of the same design, but all are distinctively graceful (Figure 13). While quite limited and open, it speaks of care and skill of execution. Note the strap screw is now from the inside.

Illustrated here are the early wide backstrap which is  $\frac{9}{16}$ ", and the later narrow strap of  $\frac{5}{16}$ " (Figure 14—Courtesy Paul Wellburn). With the narrow strap we always find grip pins and, of course, the one-piece grip. Grip pins will also be found on some wide back-strap pieces, particularly if equipped with ivory grips. I would like to be able to say that once the narrow backstrap was introduced there was no further production of the wide ones, but there are several instances where this does not appear to be true. It is just another puzzler. Note the new flare of the grips with the narrow strap.

Figure 16  
Octagonal barrels, Grafton.  
Courtesy John Bicknell





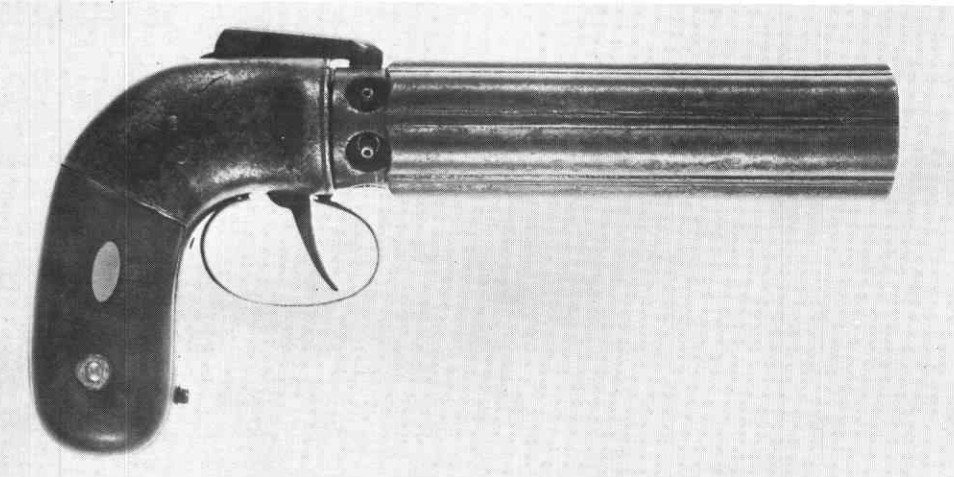
**Figure 17**  
Left. Elaborate example with  
German silver frame. Courtesy  
L. P. Bassinger



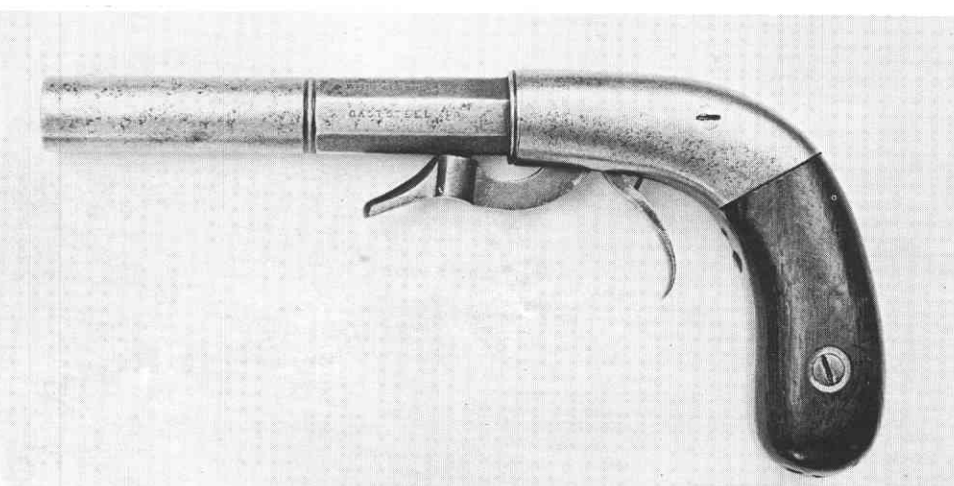
**Figure 18**  
Right. Grafton pistol with  
Norwich-type nipple shield.  
Courtesy L. P. Bassinger



**Figure 19**  
Grafton Dragoon.  
Courtesy L. P. Bassinger



**Figure 20**  
Later Grafton Dragoon.  
Courtesy L. P. Bassinger



**Figure 21.** Worcester manufactured pistol  
with Grafton "Allen & Thurber" markings



The slotted hammer makes its first appearance at Grafton (Figure 15). Of questionable value, I have noticed it is found more often with pieces manufactured for Bolen than with other agents. The early shielded types illustrated are dissimilar as to the width of the hammer opening area. The bottom gun with the widest opening is die stamped "Allen's Patent" with the size die used on the Dainty model. The top gun has a larger and later die. Except for these differences and for the different barrel lengths, these pieces are identical. They are both marked for Bolen in the conventional way, and each carry the puzzling marking "E. A. P.M." in a barrel flute.

An interesting experiment at Grafton was the Octagonal shape of the barrel between the fluted ribs (Figure 16). Why it was tried and why it was discontinued is anyone's guess.

With very few exceptions Allen's firearms reflect the same distinctive characteristics as their inventor. Plain but efficient. This beauty (Figure 17) is the exception to the plain trait. The frame is of solid German silver, the left side inset gold plated, the barrel detail exquisite. It is so special it carries no batch numbers. The only mark is the small die, "Allen's Patent," on the hammer. This is an example of the wide backstrap with grip pins, which probably accounts for the damage.

The last external change noted with the Grafton Standard is the adoption of the nipple shield usually associated with the Norwich period, the flat, rolled scroll design shield (Figure 18). All of the Standards observed with the rolled scroll shield have maximum Grafton development features. All with Grafton markings have a shield from one- to three-thirty seconds of an inch shorter than with Norwich marked pieces. It is possible these are transitional pieces assembled after the move to Norwich.

At the time these external changes were taking place there were also several internal improvements. Probably the most significant was the addition of a pitman and ratchet for more positive control of the barrel between rotations. Another improvement was protruding lugs cast on the inside of the grip strap to provide greater vertical stability for the springs. Previously, I mentioned the addition of grip pins.

By being aware of these developments, we are aided in making somewhat educated time judgements on Grafton production. Those features which appear in all cases to have remained constant with the Grafton Standards are fluted ribs and sharp angle



Figure 22  
Conventional Grafton single shot

grips. All are equipped with the 1837 action which is externally characterized by the tension screw at approximately the grip screw level.

Our third group is the Grafton Dragoon. As the name implies this is the largest size. The caliber is now .36, and the barrel length between 5 $\frac{3}{4}$ " to approximately six inches. The markings on the Dragoon are the same as on the Standards. A small die, "Allen's Patent," is on top of the hammer and "Allen & Thurber, Grafton Mass" is on the left side (Figure 19). The side-plate screw has been relocated to the rear and low on the plate. To the best of my knowledge, all are shieldless. The characteristics of this one indicates early Grafton. It is without the improved pitman and ratchet, has no grip pins, and the muzzle is not inlet. It has removable nipples, spring lugs and the early barrel rotating link. The absence of grip 'spangles' is unusual, as is the slightly less sharp drop of the grip angle.

There is no doubt that the gun pictured in Figure 20 is later. The muzzle is inlet. It has integral nipples and is equipped with the improved pitman and ratchet. The grip "spangles" have reappeared, as has the quick drop of the grips.

The gun in Figure 21 was manufactured at Worcester. However, look for this second model under-hammer with Grafton markings. It will be marked on the barrel flats, "Allen & Thurber, Grafton, Mass. Pocket Rifle-Cast Steel-Warranted." It will differ only slightly from this late production. This difference is

Figure 23  
Grafton made Allen & Thurber  
rifle. Courtesy Eldon Owens

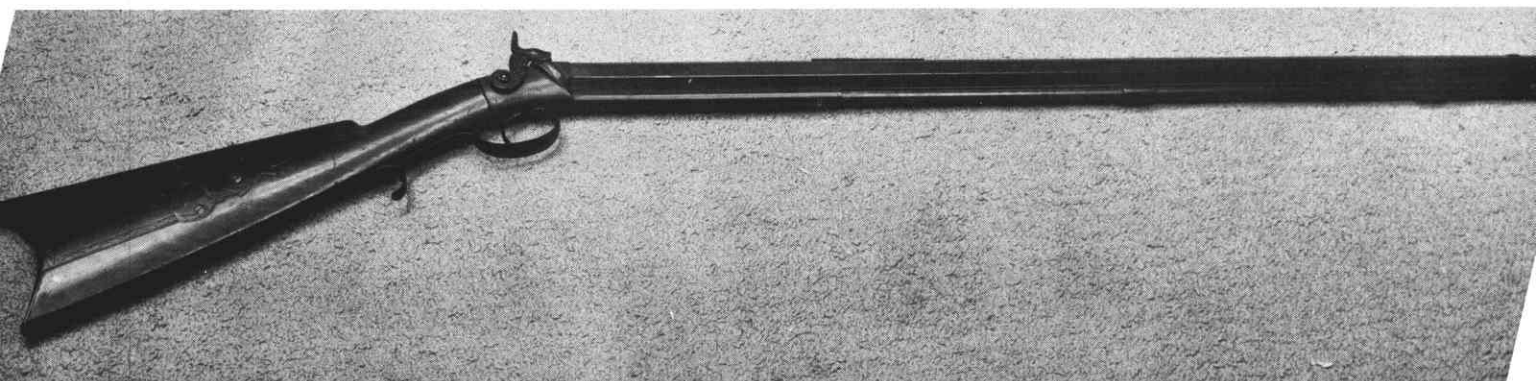




Figure 24  
Norwich ring trigger.  
Courtesy L. P. Bassinger

Figure 25  
Norwich Standard.  
Courtesy L. P. Bassinger



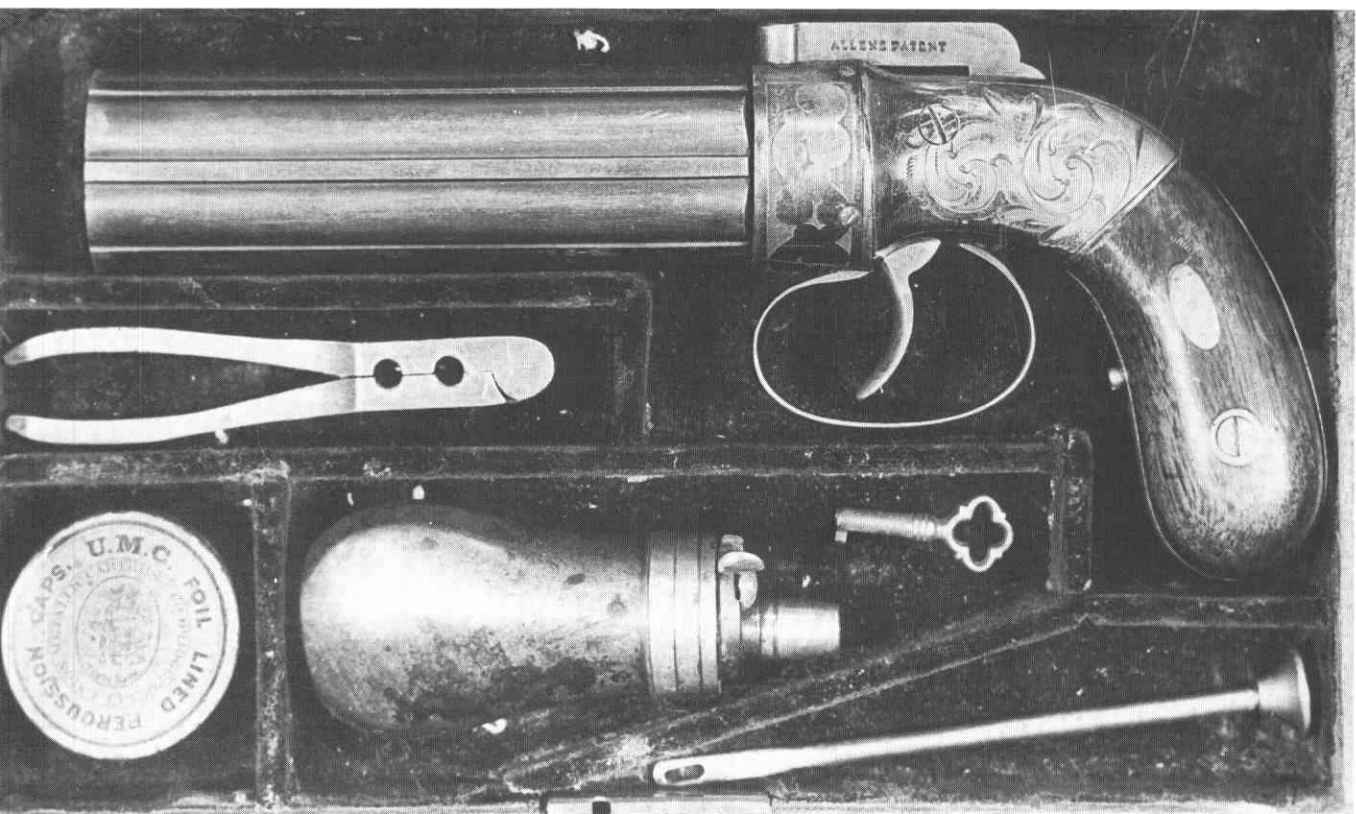
in the width of the back grip strap, and the angle of the trigger.

Finally, a Grafton single shot of conventional style (Figure 22). I have never encountered this pistol with varying dimensions. The only variance noted has been in the engraving styles. I have been told that it was produced with a ring trigger, and Dexter's Scrap Book, Volume 1, Plate 43, illustrates a pistol accredited to Allen, which not only has a ring trigger, but an all-round barrel. This may have been a Grafton production.

Two points about Grafton production which I have not emphasized and of which you can be quite certain are 1) all Pepperbox pistols of this period are six shot, and 2) none carry the 1837 patent date.

Excluding the Lambert Cane gun, all of the Grafton firearms I have reviewed have been hand guns. Discovery of a shotgun or a rifle properly attributed to Allen & Thurber while at Grafton has always seemed a reasonable possibility. Only recently has this possibility become a reality (Figure 23).

Figure 26  
Norwich Standard with nipple shield.  
Courtesy L. P. Bassinger



We regret this picture leaves much to be desired. It was the best we could do in a hurry. The side plate is die stamped "Allen & Thurber, Grafton Mass.," on two lines. The caliber is .48 measured in the grooves. Barrel length 29 $\frac{5}{8}$ ", Overall 45 $\frac{1}{4}$ ". The patch box, lock and hammer have a small amount of engraving.

In 1842 Allen & Thurber moved their operation to Norwich, Connecticut. Here railway facilities were available for both the receipt of raw materials and for shipping the finished product. An improved labor market and unfailing water power were secondary reasons for the move. In any event, where Grafton production was numbered in the hundreds, Norwich was to be counted in thousands.

Early Norwich pieces are frequently indistinguishable from late Grafton. In most instances they represent stock fabricated and sometimes marked prior to the move. It also took some time to secure a new die. The familiar, "Norwich, C-T" stamping appears at about the same time that pieces began to carry the 1837 patent date. This according to Patent law would be 1842, but we have no knowledge on how long it took Allen & Thurber to comply. We do know that the earliest date die had a flat topped numeral three, the later one a round topped three. It would seem that a piece carrying the flat top three should be earlier than one with the round top. This does not always seem to follow when other characteristics are taken into account. Then there is the possibility of a poorly struck die, or the great possibility that the first die was not retired when the later one was acquired. So again, there is little that is absolute.

I will not say that the ring trigger Pepperbox was not manufactured at Grafton, but the first I have seen are Norwich (Figure 24). This early Norwich piece introduces the dog-leg shaped grip, also not observed on Grafton Pepperbox. Note here the location of the side plate screw, the early tension screw location, the fluted rib barrel, the early engraving, and the rounded top three.

Here's another early Norwich Standard (Figure 25). Note the Grafton style 'quick drop' angle to the grips, the early engraving, and the 1837 tension screw location. Yet the barrel ribs are flat, and the side plate screw has been relocated rearward. This also has the rounded top three in the date stamp. Which is the earliest? I frankly do not know; they are both early contemporary pieces from Norwich. In 1845 Allen secured his second primary gun lock patent, U. S. Patent No. 3998. This covered a simplification of the double action features by eliminating the secondary springs and by reshaping internal parts. It also incorporated a single action, or dual capability. This feature required a spur on the bar hammer which was probably quite awkward to operate. Production was abandoned after only a few of both the Standard and the dragoon sizes were made. Trials of this sort make rare collectors items. I doubt that you will ever have the good fortune of finding one for sale.

The significant point of this second patent to the collector is that it marks the division between the

early and the late actions. Due to the adoption of a curved main spring, this second action is easily recognized by the new location of the tension screw head. It will be located midway on the inside grip strap, instead of opposite the grip screw as characterized by the flat main spring of the 1837 action. After the adoption of the 1845 patent principals there were full and partial modifications of existing stock. This occurred on a gradual basis, but there was no return to the early action.

Again a new patent date die was slow in coming. The 1837 date was placed on many pieces equipped with the 1845 action, even into the Worcester period.

So we have a major classification point at Norwich—those with the early action, and those with the late. We have Standards and Dragoons. We have "dogleg" shaped grips, the early "quick drop," and finally the gently curved type which we term the "slow drop." We find fluted ribs during early production, then the narrow flat rib. We find shieldless and rolled scroll design shielded. There is the ring and the conventional trigger, the spurred and the conventional trigger guard. The first concealed hammer Pepperbox was made at Norwich as well as one with brass pin sights on each barrel. Finally, you may find one where the barrel retaining screw is a dagger. I doubt Allen & Thurber had anything to do with that.

With all these differences, Norwich is a most rewarding period for the collector. By the same token it is almost impossible to choose one example and say it is the typical Norwich Pepperbox. If I were forced to choose the most representative Standard, I think Figure 26 would be my choice.

My justification here is the slow drop grip angle, the 1845 tension screw location, the narrow flat ribs, the rolled scroll design nipple shield, and the deep sideplate engraving. All belong to Norwich, even though they are not entirely unique.

Now I hear someone saying; "This is all quite easy when specimens are marked with the place where they were made. But, mine is not. Mine just has "Bolen," or "Spies," or "Warren & Steele," plus "Allen's Patent," on the hammer. Or, perhaps, just "Allen's Patent, 1837," and "Cast Steel," on the barrel.

I must admit that at first these minimal and agent marked pieces are confusing to the inexperienced eye. However, by using the distinctive features of marked pieces which I have discussed today as your reference. I think you will rather quickly be able to catalogue your piece quite accurately.

I have mentioned only the Pepperbox manufactured at Norwich. There were also single-shot bar hammer pistols quite similar to those marked Grafton. The early ones have the Grafton characteristics, the quick drop spangled grips and the low-tension screw. Later production gives us a slightly more sloping grip angle, the 1845 tension screw location, and unadorned grips.

My closing is in the form of a question. Does anyone have, or know of, an Allen long gun manufactured at Norwich? I think it's a reasonable possibility and I would like to learn of any such piece.