

THE HEWES AND PHILLIPS STORY

by James C. Altemus

INTRODUCTION

My interest in Hewes and Phillips began some years ago in the general accumulation of martial muskets. This particular type of conversion of flintlock to percussion was then relatively easily obtainable in and around the State of New Jersey. In those days, maybe twenty-five years ago, conversions went for a fairly reasonable sum, compared to the flints. I would think the gap has closed somewhat today, particularly if we consider condition and authorized or arsenal work.

Those of you who were at our 1971 fall meeting at Williamsburg will recall Ed Howell's fine talk on the conversion of U.S. muskets, and his plea to collectors to leave them as they are - converted. Ed showed four basic systems, but there is a fifth, wherein the bolster is welded to the side of the barrel *without* the patent breech feature. Fortunately, the Hewes and Phillips type, using the patent breech, would be the most difficult to re-convert. We are disregarding here the mechanical primer systems, which are generally scarcer and more desirable than original flint.

HISTORY OF THE HEWES & PHILLIPS COMPANY

A few years ago there was considerable misunderstanding of the correct spelling of the company name. We had "HOUGHS," or "PERKINS," or "HUGHES," in various combinations, and one book "PHILLIPS AND HEWES." Since we know of no arms stamped with the full company name, the error was easy to make. The Newark library was researched, correct spelling established, and published in a letter to the Gun Report in July of 1963.

Hewes and Phillips began their business in the manufacture of steam engines in New York City in 1845 and transferred to Newark, New Jersey, the following year. After two more moves the company was settled in its Civil War location at the foot of Orange Street, facing the Passaic River. Here, of course, the muskets were converted, and some 400 hands were employed. So far, no actual contracts for the war work have been uncovered, but library sources state their first order was the 8,000 converted muskets for New Jersey. These are known dated 1861. The musket work must have been done concurrently with that of producing motive steam machinery for the Federal Navy. It is a matter of record that they made the engines for the light draught ironclads "COHOES" "MODOC," and others, very probably for the "MONITOR" itself. The turret rings for the "MONITOR," planing machinery for its armor, and the armor



itself were turned out in the record time of 21 days. This was late in 1861, but allowed the little cheesebox to be completed at Brooklyn in time for the Hampton Roads engagement with the VIRGINIA. It is also a matter of record that the firm produced gun making machinery for Colt, Joslyn, and various foreign governments.

Through the efforts of a personal friend and fellow member of The New Jersey Arms Collectors Club, Louis Cherepy, I was fortunate in being able to contact an elderly gentleman who had worked for this company in his early years. Since I have collected and studied the United States Martial longarms, flintlock converted to percussion by Hewes & Phillips, it presented a fine opportunity to possibly add to what has already been published about Hewes and Phillips. This occurred in September, 1974.

The early history of the company is outlined in Volume 1, Story of Essex and Hudson Counties (N.J.), compiled by Everts & Peck, publishers, of Philadelphia, in 1884.

Early in the winter of 1973, accompanied by Ben Michel, a trip to the old Hewes and Phillips foundry was made. It fronts on present McCarter Highway at the foot of Orange Street. McCarter Highway parallels the Passaic River, then as now, an important waterway for Newark, Port Newark, and vicinity. Massive cranes loaded the heavy machinery onto boats for coastal and overseas shipment. We found some of the old buildings occupied by the Alexander Seidler Chemical Company, which had acquired the premises in the mid-1920's. In later years Seidler subdivided the property and buildings to various smaller businesses. All the buildings were of brick, and massive. In one large room, 50 by 150, huge overhead wooden beams still were in place, and probably were used to support the indoor cranes, laden with molten iron. Unfortunately, the present occupants could not give us much information

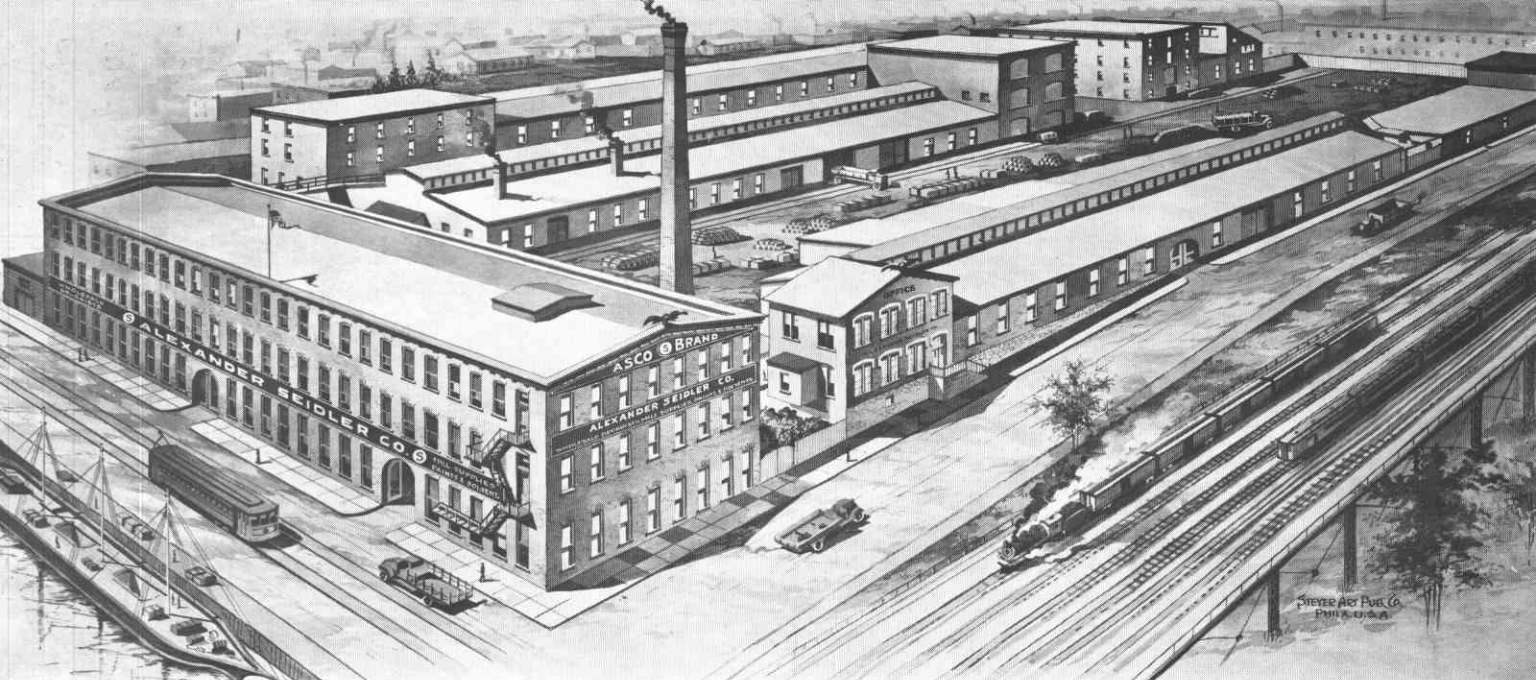


Figure 1. Alexander Seidler Chemical Company circa 1920, formerly the old Hewes and Phillips foundry.

regarding the previous owners. We were confronted with 50 years of personnel change. However, we were kindly given one of their original blueprints, and an art photo, done at the time of the 1920 acquisition (figure 1). A very elderly employee was also kind enough to hand us a 12 pound cannon ball, which he said had been found in a corner of the yard during a clean-up years ago. This spurred our interest, as no record has been found that Hewes and Phillips cast any heavy ordnance. We then located in the present driveway a ring of iron (figure 2), about seven feet in diameter. In the middle is what looks like the breech end of a cannon, and the ring may be the rim of a scrap melting pot. In any event, it was an exciting trip, and the pictures show for the most part how well the original buildings have survived. It is interesting to see the Hewes and Phillips name, still readable, on the long section of the building fronting the river.

I should now like to retrace and go back to the gentleman I had the pleasure of talking to, Mr. Sidney Ayrey, now 90 years of age. He exhibited a remarkable memory. His story to me began with events of more than eighty years ago. Unfortunately, he was unable to shed much light on the Civil War years of Hewes and Phillips. However, his story helped to complete the history of the company, unrecorded until now.

"I came to the United States in June, 1892, at six years of age, and went to the Blackstone area of Massachusetts, where some of the family were already living. We settled in Grafton, and my family entered the same work in the textile business. Somehow, my uncle became associates with Brighton Mills, on 23rd Street in New York City. This firm manufactured sails, canvass, and other heavy duck cloth material, and supplied these materials for the American

Cup boats of the period. When I was about 14 years old, Brighton Mills moved to Passaic, New Jersey, and our entire family moved down there. At this time I went to work for Brighton Mills in their shipping department, staying there for three years. One day I had a request to go to the engine room, and there noticed a Hewes and Phillips steam engine. Having what I hoped was a mechanical turn of mind, I asked for an opportunity to talk to the people who made this engine, which somehow, fortunately, was arranged. I was interviewed by Robert Phillips, youngest of the sons of John Phillips, who was one of the founders. This was in 1903, and Robert was 35 years old. I signed an indenture that required me to work for a period of four years no pay for the first two months, followed by pay of \$3.00 per week, with a 50 cent raise every six months. For the first six months I worked in the tool room, and was taken "graduated" to the shop proper, and given the choice of the erecting floor or the machine shop. I chose the machine shop, with emphasis on the steam engines. After that I moved to the assembly operations of the steam engines. Hewes and Phillips discontinued making boilers in 1895, after that only the Corliss Steam engine. A Mr. Dudley Drake was Superintendent, and my mentor and boss in all the years with Hewes and Phillips. I was with the company until it went out of business in 1920. It was sold to Essex Engine & Machine Corporation of Belleville, N.J., whose principals were John and James Hozack. The main engineering staff, including myself, were retained. Essex Machinery acquired all the jigs and property of Hewes and Phillips. Yes, let me



Figure 2. The Hewes and Phillips foundry as it now looks.

give you the information on the sons of John Phillips. Robert, whom I mentioned, retired in 1920 when the company was sold. There was a sixth brother, never in the business, and whose name I do not know. The other five were more or less active.

- George, died about 1922
- Edward, died about 1904
- Franklin, died about 1913
- William, died about 1930 (Was office man)

Robert, died about mid-1930's
 Essex Engine carried on until 1941. Practically no new steam engines were being made, and the work consisted mainly of repair and maintenance of existing Hewes and Phillips engines. Steam, as a motive power, was fast becoming obsolescent. In 1941, Essex Engine was bought out by McGlynn, Hayes Company, elevator makers, from New York City. The principal here was a Mr. John Hayes, who had Washington connections, and needed a

“store front” for World War II contracts. Somehow, the elevator business was not suitable for his operations. Anyway, we manufactured radar mounts, and mounts for five-inch guns. Before the Hozacks sold out to McGlynn, Hayes, they gave me enough of the old machinery to set up a small repair shop, and I freelanced with some of the old customers while still working for Mr. Hayes. In 1945, with the ending of war contracts, McGlynn, Hayes tried other lines of endeavor, but finally failed about 1950 or 1951. All of the old machinery was sold or scrapped at this time. However, in 1946, I had quit the company, being then 60 years of age, and ready to retire. But later in that same year I was called by a Mr. William Watts, a principal of the Watts-Campbell Company, also manufacturers of Corliss Steam Engines, who had been friendly competitors of the old Hewes and Phillips, and were still located on Ogden Street in Newark. I guess I was not ready to retire,

and stayed with them on an active basis until 1952. By then, steam engines were completely outdated, and it did not even pay to try to maintain the ones still in existence. So I really did not retire until 1952, and even after that did special "call-in" work for a few years.

During my early apprenticeship with Hewes and Phillips, I recall talking with Civil War veterans who were employed there, though none of them worked in the foundry during the war itself. I do recall trying to enlist for the Spanish-American War, but of course was too young.

The planing machine that you speak of for the U.S. gun boat "Monitor" was still there, and remained in operation until Hewes and Phillips sold to Essex Engine in 1920. Also the hugh pit lathe and Niles (Philadelphia) horizontal boring mill. I would think it possible that the company had made the motive machinery for the gun boat you speak of, since they were pioneers in steam power. I do recall hearing that after the Civil War ended, Hewes and Phillips began pioneering in small machine tools. This must have covered the period from 1865 until 1878, because in that latter year the Corliss engine was developed, and Hewes and Phillips was again in steam propulsion. I believe the planning machine went to a British Museum in 1920, when Hewes and Phillips was finally sold. This is hearsay, but very likely, since it was a unique tool."

LONGARMS CONVERTED

Although it is generally accepted that Hewes and Phillips produced longarms for both the United States Government and the State of New Jersey, only records verifying the delivery of such guns to the United States Government have been found. The presence, however, of significant quantities of arms stamped for the State of New Jersey does support the existence of the New Jersey contract. Shown as Figures 3 and 4 are copies of entries from the records of the Chief of Ordnance two pages totaling some 9,890 muskets re-altered at a cost of \$38,082, and a further expenditure of \$9,200.75 without a total stated for muskets delivered against this sum. However, dividing the cost of the 9,890 muskets into \$38,082, we arrive at a cost of \$3.805 per musket and dividing the expenditure of \$9,200.75 by this unit cost would indicate approximately 2,420 more muskets were also delivered, or a total of some 12,310. This figure roughly confirms with the approximate total of 12,000 customarily stated as delivered to the United States Government.

The New Jersey contract for the 8,000 muskets was made on a cost incurred basis only. No profit

was asked. This was followed by the Federal contract above referred to for 12,000 arms, and it is the identification of these two groups that I have tried to establish and sort out.

I am sure that you all know that the method consisted of removal of about one inch from the breech end of the barrel, and then screwing in a new section with an integrally forged tang and bolster. This is shown in Figure 5. It is through the reassembly marks that we will try to pinpoint those pieces done by Hewes and Phillips. I do not believe Hewes and Phillips developed the system they used, but that it was used earlier, possibly at Harpers Ferry or Springfield. See figures 6 and 7, and note the style of barrel markings. The design of the snail bolster and markings are not like any known Hewes and Phillips arms. I have taken apart and examined many of these pieces and almost all of them carry a Roman numeral on the barrel underside. The majority have Harpers Ferry locks. Going back a step, in Figure 8 we see the predecessor of this whole system. The barrel was not cut off, but simply had a bolster brazed over the touch hole. Again we have a Harpers Ferry lock, and Roman numerals which are not Hewes and Phillips work. On these two types the barrels have not been rifled and the front sight remains on the rear strap of the upper barrel band as originally positioned.

Figure 9 is a puzzler. The flat snail is very similar to the last type known to be made by Hewes and Phillips, but the re-assembly marks are different. Perhaps there was yet another contractor in the middle years of the war. I say this because Harpers Ferry was gone, and Springfield probably too busy on 58 calibre work. The absence of a clean-cut screw in the bolster dates it as probably within the 1862-63 period.

We have now reached the point of recognizing the Hewes and Phillips arms, both marked and unmarked types. The early New Jersey arms show a variety of bolster designs. Figures 10, 11, 12, and 13 picture some of these. Figure 14 shows one of these, clearly marked Hewes and Phillips, and with the early date of 1861. This piece is stamped N.J. on the left barrel flat. Here again, these early pieces have the clean out screw, consistent with the 1855-61 period. Not all of Hewes and Phillips arms are dated by any means, but those showing 1862 or 1863 are all of the latest flat-faced design which is flush with the lockplate. The flat design comes either completely unmarked or stamped Hewes and Phillips on its face, as in Figure 15. This may indicate an overlap of the two contracts as the final design evolved, with the Federal pieces being the marked ones. The key to Hewes and Phillips work, I believe, lies in the re-assembly marks. Figure 16, lower two barrels, and Figure 17 show the identical style of numerals and/or letters that was consistent throughout their production. Figure 18 shows this mark also stamped in the stock. Figure 19 shows their final and most perfected

Hewes & Phillips

of

Newark N.J.

Cr

Dec 11.

altering muskets M. S. R. Wilkins

Dec. 15 Purchase of muskets 9200.75

\$ 9200.75

Figure 4. Statements of accounts, U.S. Ordnance 1863.

Figure 3. Statements of accounts for contractors, 1817 to 1905. U.S. Ordnance 1862.

Hewes & Phillips

of Newark N. J.

105
Cr

OFFICERS' CERTIFICATE OR ACCOUNT.	OFFICERS' CERTIFICATE, &c.		REGISTERED.		FILE NO.		ENTERED IN CLASSIFIED JOURNAL.		NUMBER OR QUANTITY.	KIND OF STORES.	TO WHOM DELIVERED.	DATE OF REFERENCE TO 2d AUDITOR.	AMOUNT.
	Book.	No.	No.	Page.	No.	Page.							
												1863	
	13	12	1	1927	121	4	37	1380	realtering muskets	Capt. Crispin	Jan'y 15		5,278 50
	9	16	1	1953	135	4	37	3,200	" "	" Crispin	" 17		12,411 20
	21	114	1	2386	165	4	37	1,520	" "	" Crispin	Feb'y 25		5,814 00
	17	120	1	2408	170	4	37	2,220	" "	" Crispin	" 27		8,491 50
	7	2	1	2901	573	4	38	50	" "	M. S. R. Wilkins	Apr 10		237 50
	30	5	1	2902	574	4	38	1,520	" "	Capt. Crispin	" 10		5,819 30
													\$ 38,082 00

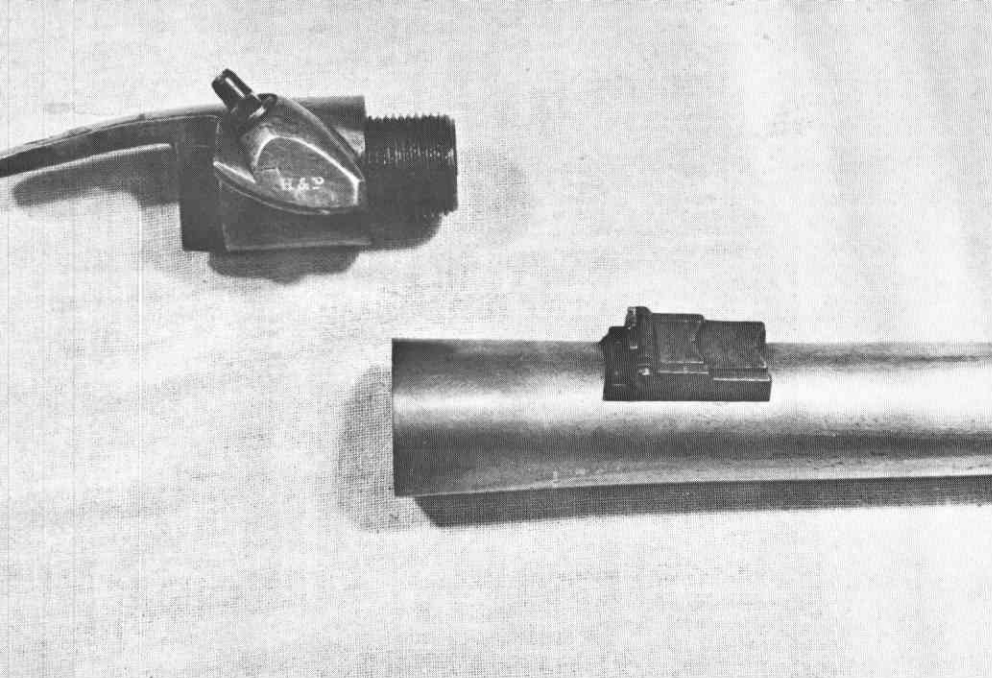
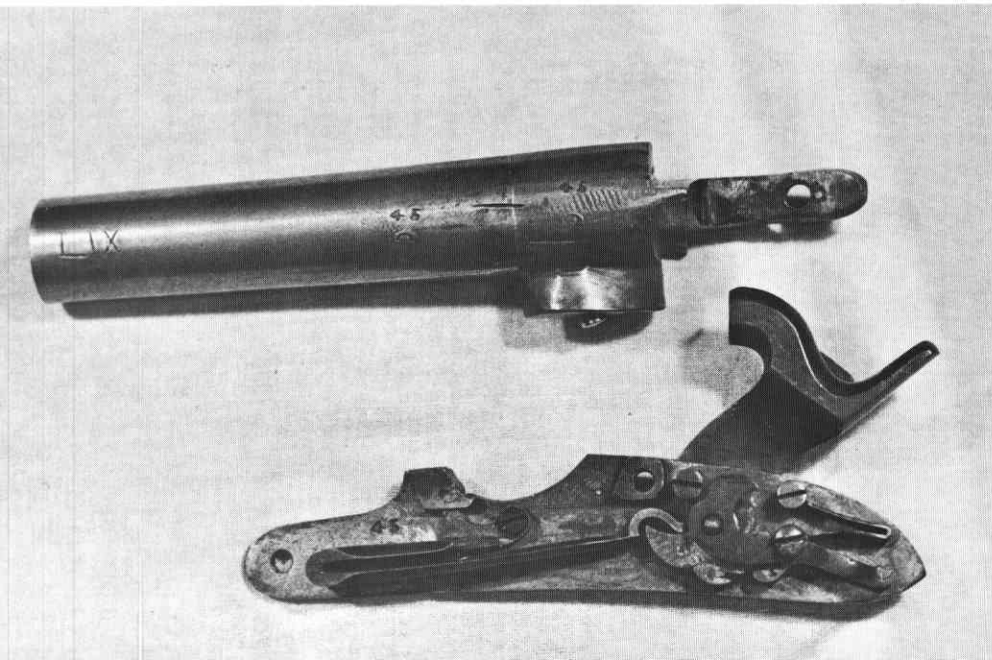
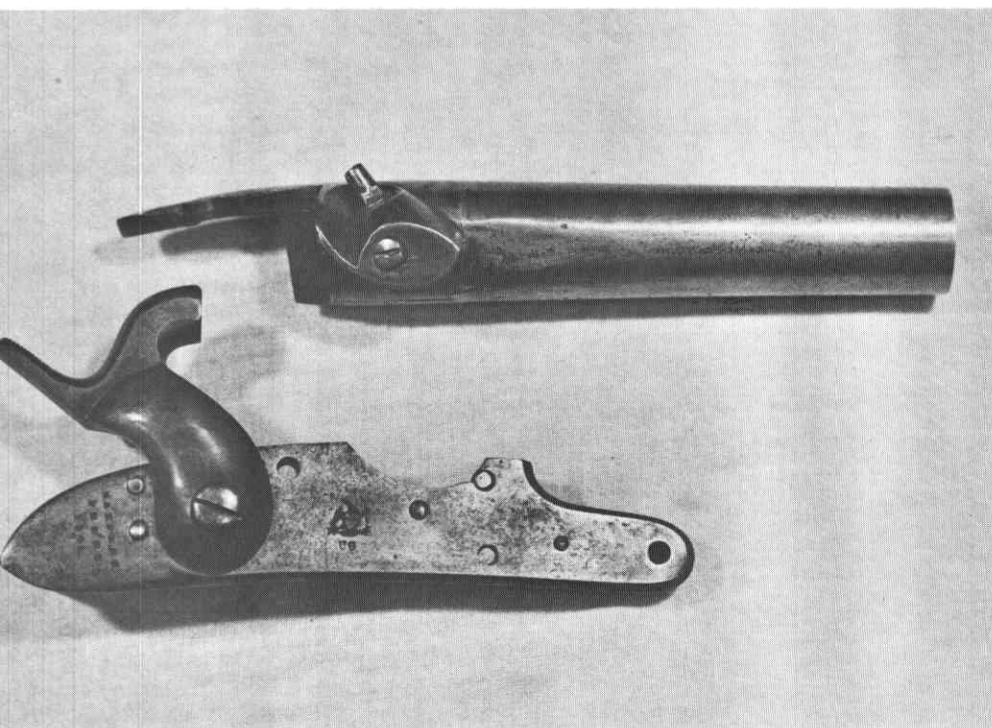


Figure 5. Hewes and Phillips conversion method.



Figures 6 and 7. Predecessors of Hewes and Phillips conversion showing barrel markings.

Figure 8. A brazed bolster conversion which preceded those done by Hewes and Phillips.

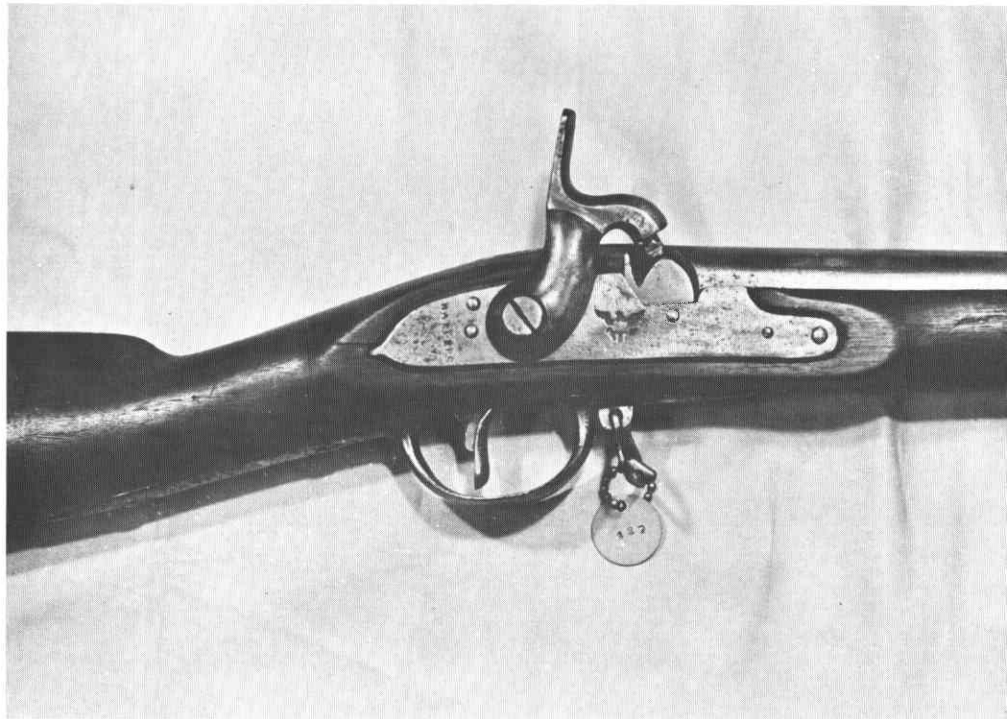
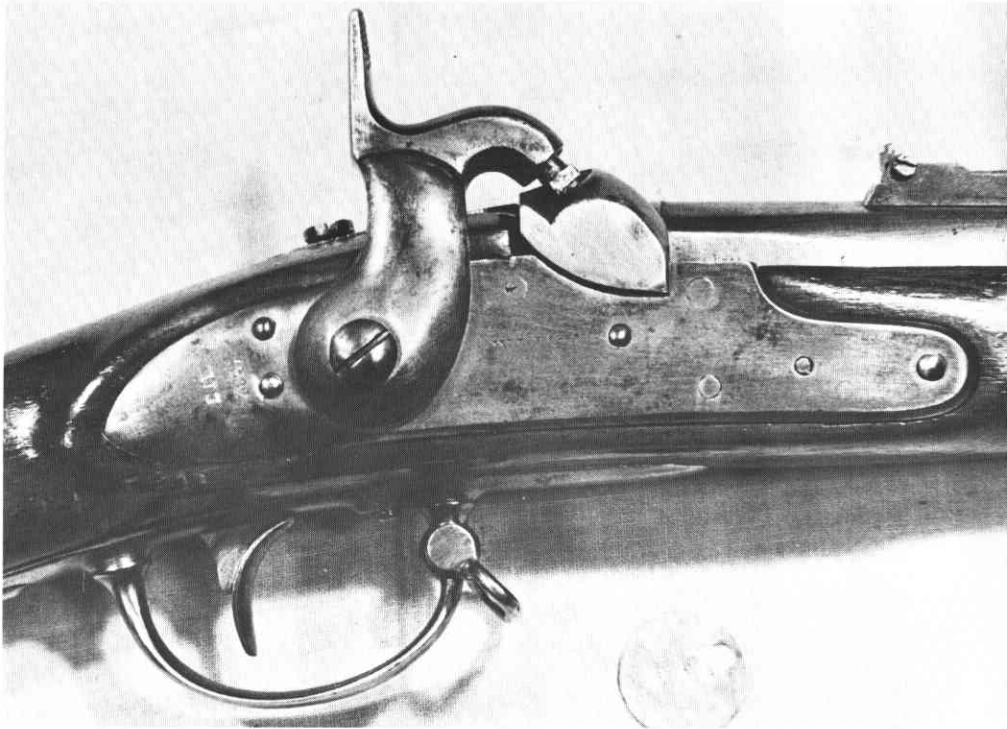


Figure 9. Conversion by unknown contractor similar to last type done by Hewes and Phillips.



Figures 10, 11, and 12.
Various Hewes and Phillips
conversions, New Jersey
contract.

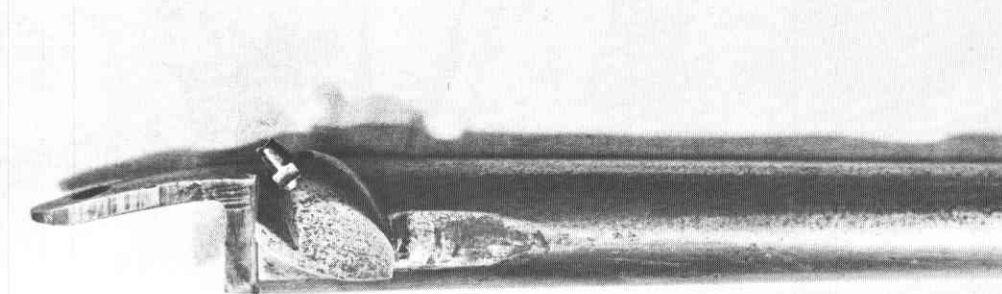
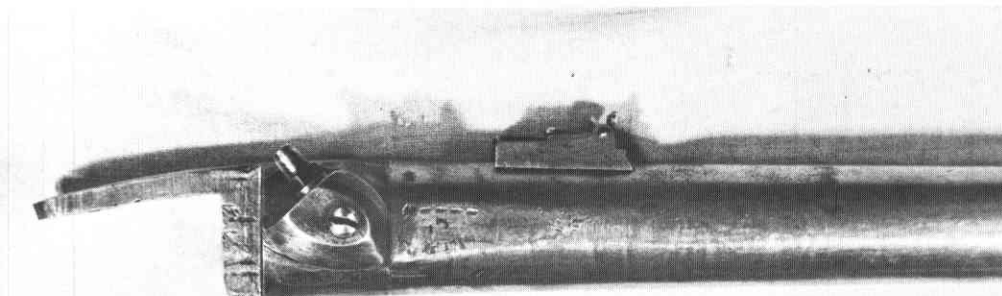
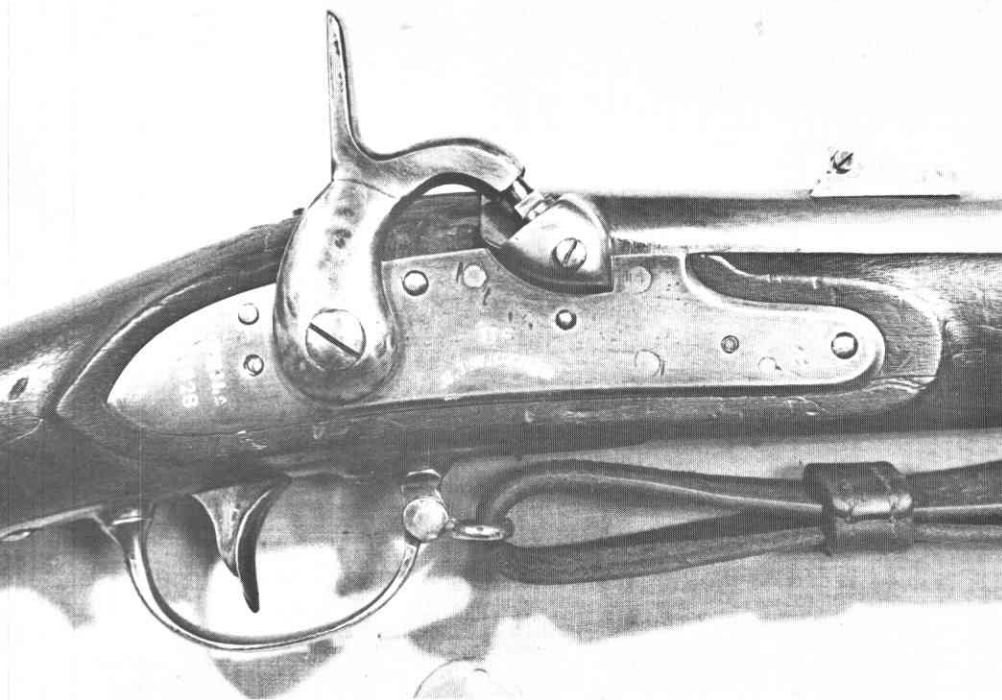
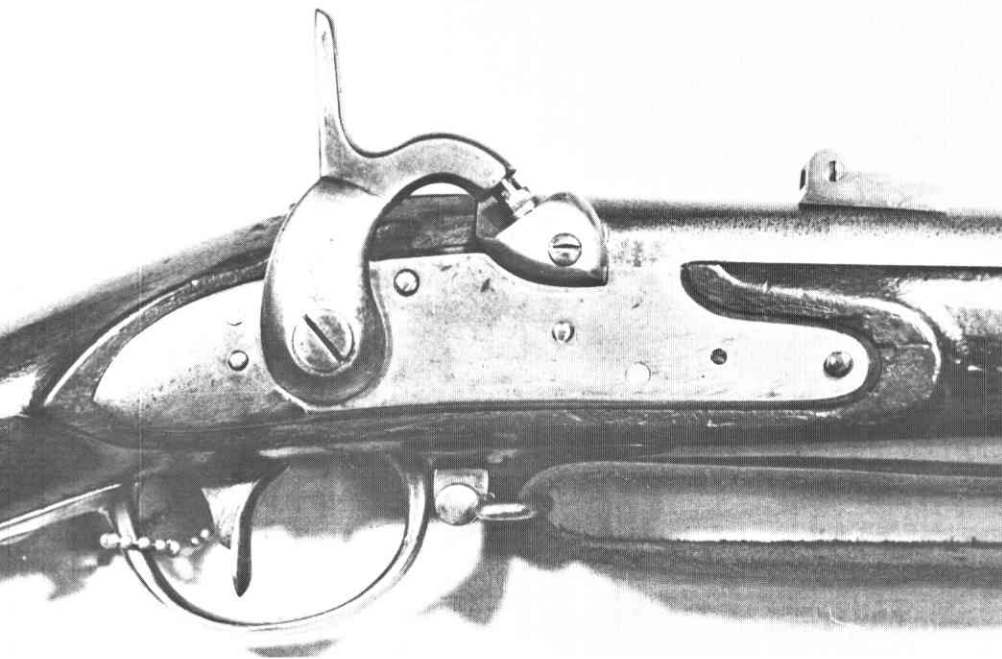


Figure 13. Typical Hewes and Phillips conversion, New Jersey contract.

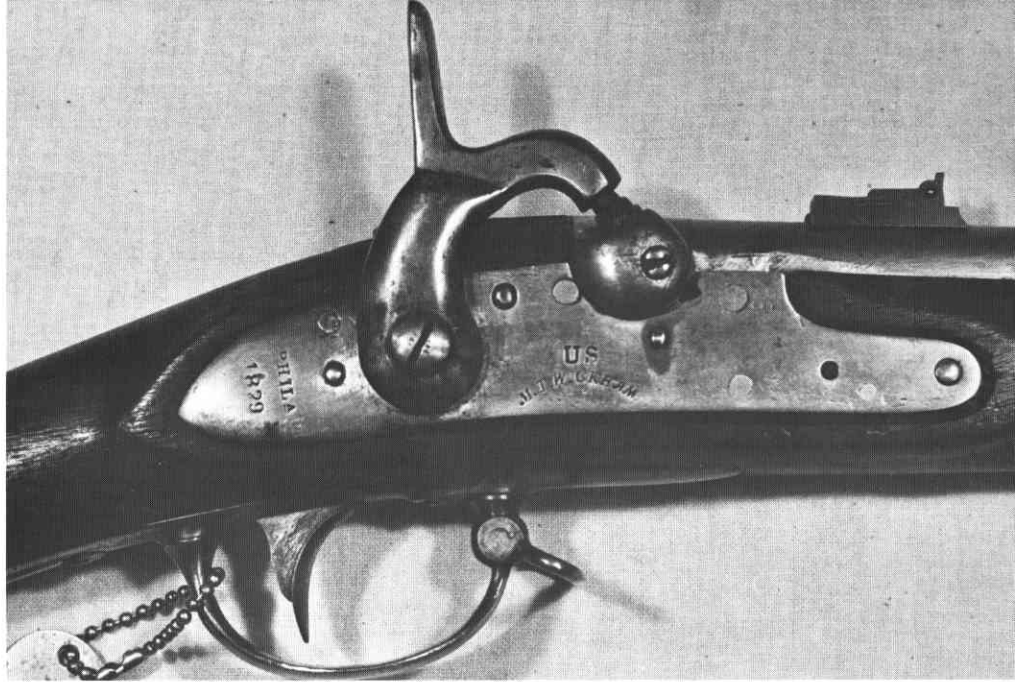


Figure 14. Dated 1861 and marked Hewes and Phillips.

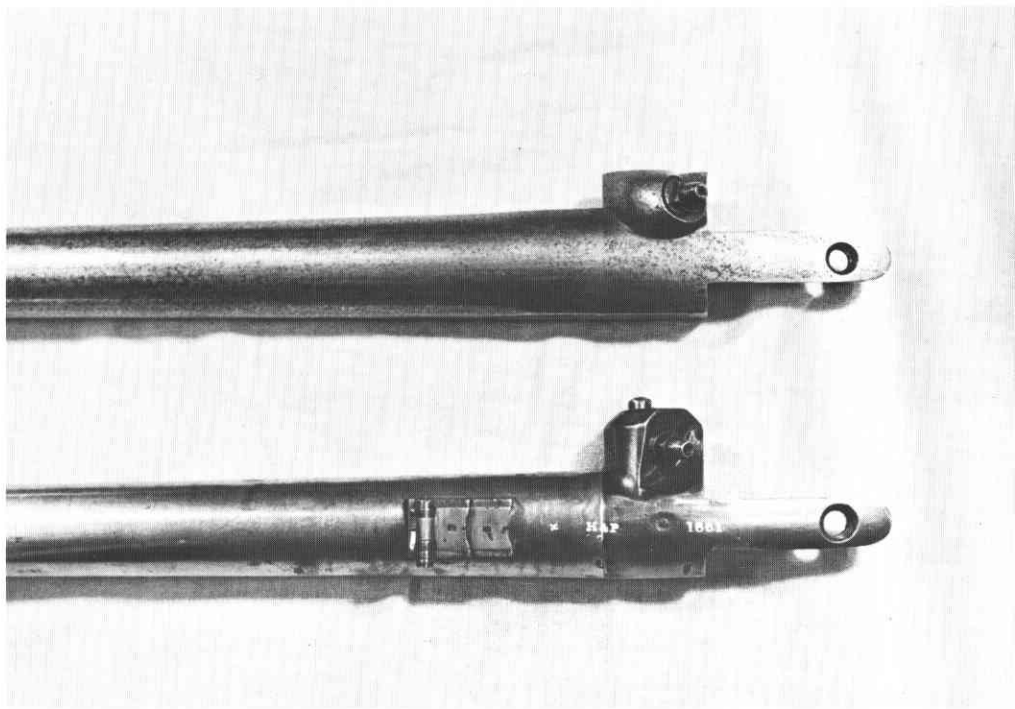
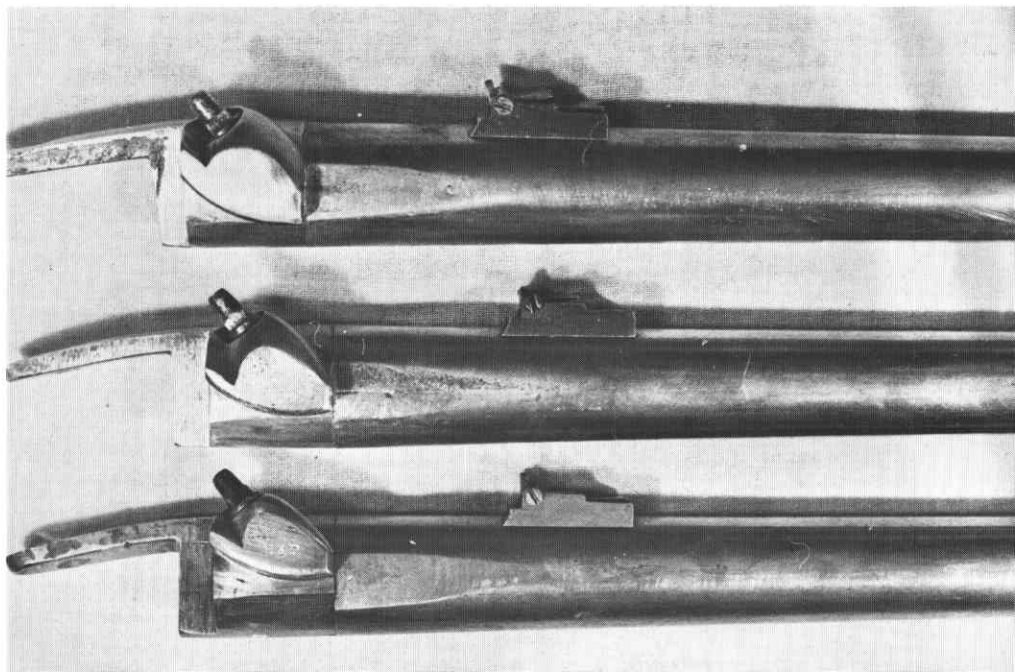


Figure 15. Flat design Hewes and Phillips later conversion.



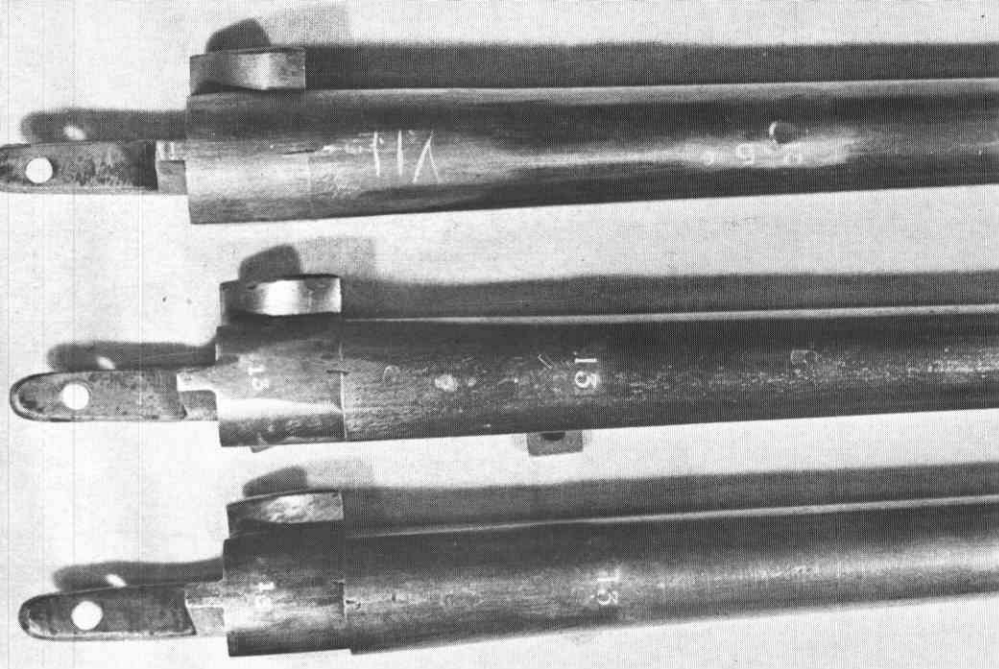


Figure 16. Barrel markings.

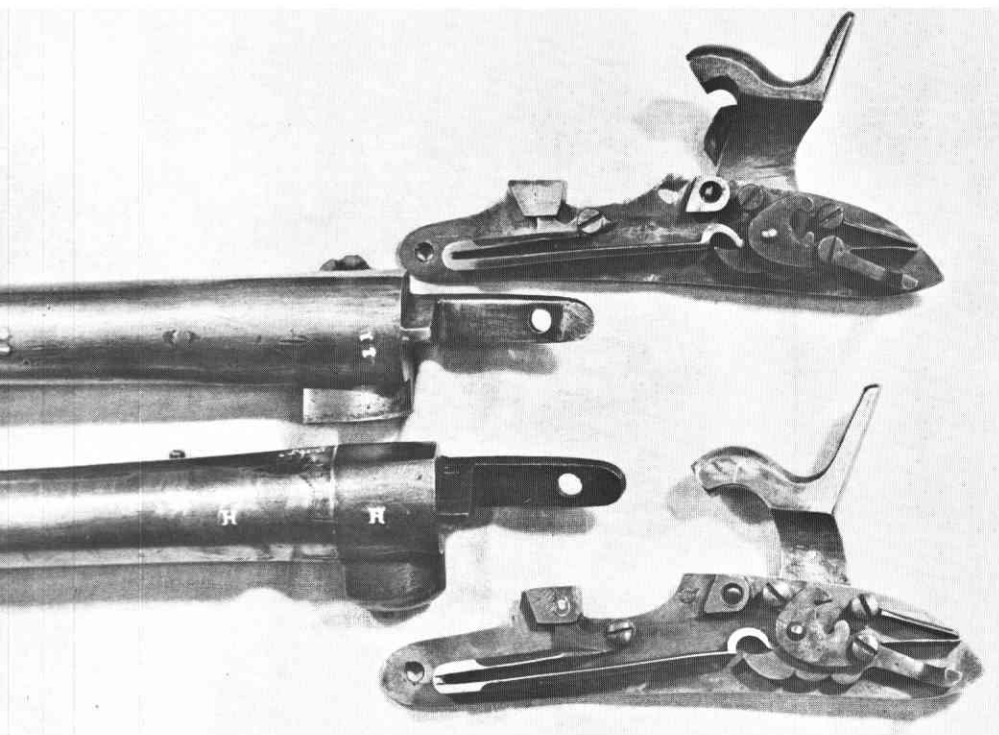


Figure 17. Barrel markings.

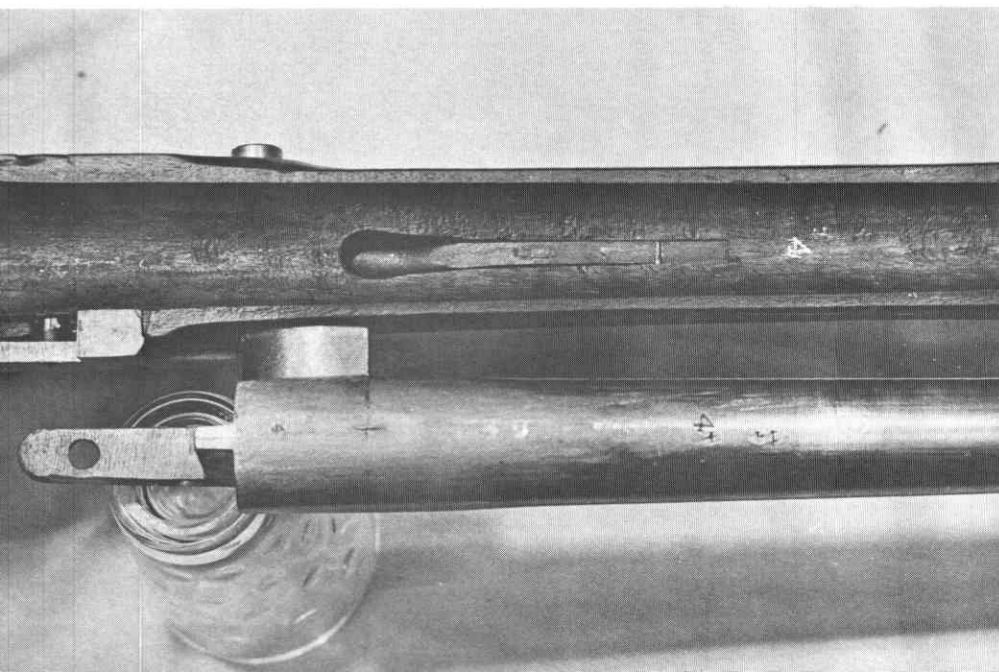
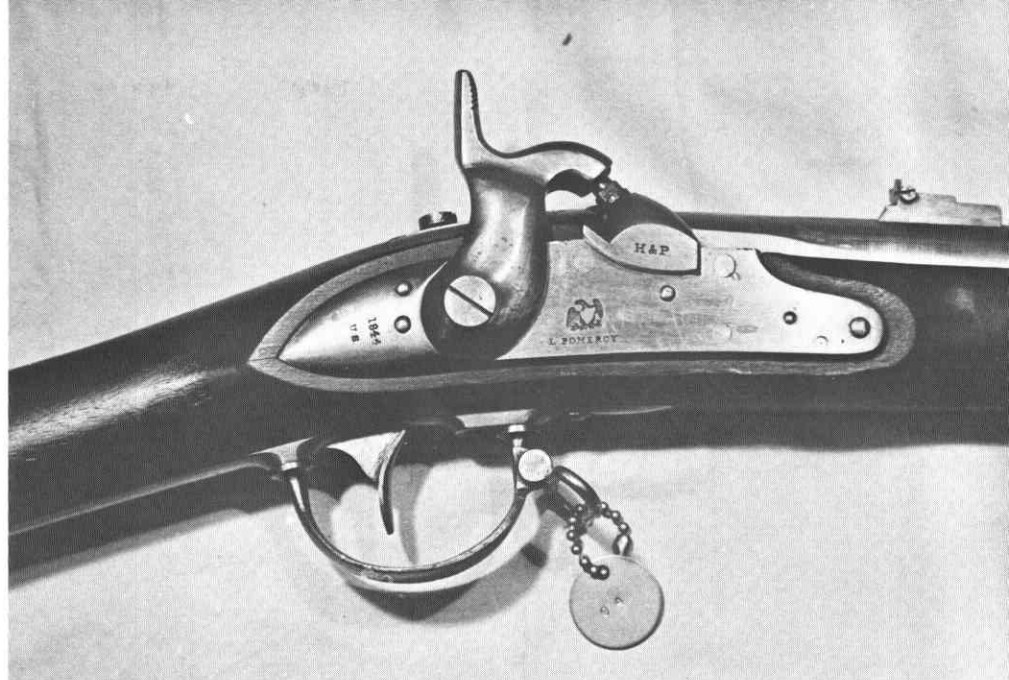


Figure 18. The barrel mark is also on the stock.

Figure 19. Latest and most perfected Hewes & Phillips work done under Federal contract.



work as done under the Federal contract. Apparently, the re-assembly markings are batch numbers, similar to the Allen firearms markings, as they are low numbers and there is duplication.

The chart on page 64 shows you a listing of these muskets in their order of production. Note that most of the early New Jersey arms utilized the Remington style high spur hammer, probably indicating that the company purchased certain parts in order to rush production. Where 1840-type muskets were altered the front sight was not touched, but on 1816 models the sight was moved to the upper strap. I have noticed only one exception here, possibly a factory oversight, and this in the New Jersey series. Generally speaking, the bores were rifled in the earlier arms and later left smooth, but without a consistent pattern. Only one gun has been seen without an added rear sight. The combination of rifling, adding rear sight, and relocation of the front sight is as about as consistent as with the mechanical primer types. The chart also shows that 2nd class arms, M 1816, went to the New Jersey contract, while 1st class arms, M 1840, were used on the Federal contract.

CONCLUSION

I hope the information I have outlined will be helpful in identifying Hewes and Phillips work. Granted, it is only a small segment of the entire conversion field, but so far as I know, has been largely unwritten.

CONVERTER	BASIC MUSKET	RE-ASS MARK LOCK PLATE	RE-ASS MARK-BARREL	RE-ASS MARK-STOCK	N.J. MARKED	H-P MARKED	TYPE OF BOLSTER	CLEAN OUT SCREW	RIFLED	TYPE OF HAMMER
?	1816	45	45 LIX	—	NO	NO	LARGE SNAIL	YES	NO	1842
?	1808-12	.22	.22 LLLXXXVI	186	NO	NO	LARGE SNAIL	YES	NO	MIL. PERC.
?	1816	NO	25 ⁶ VII	25 ⁶	NO	NO	SMALL SNAIL (LATE TYPE)	NO	NO	1842
H&P	1816	⑧	H 8 H	H 8 H	YES	YES 1861	PROTRUDING ROUNDED WITH BEVEL	YES	YES	REM. HI-SPUR
H&P	1816	L	L	NONE	YES	NO	PROTRUDING ROUNDED WITH BEVEL	YES	YES	REM. HI-SPUR
H&P	1816	14	14TT	TT14	YES	YES 1861	PROTRUDING FULL ROUND NO BEVEL	YES	YES	REM. HI-SPUR
H&P	1816	Q	Q	NONE	YES	NO	PROTRUDING SEMI ROUND NO BEVEL	YES	NO	REM. HI-SPUR
H&P	1816	⑬	13	13	NONE	NO	SMALL SNAIL (LATE TYPE)	NO	NO	1842
H&P	1840	⑪	11	11	11	NO	SMALL SNAIL (LATE TYPE)	NO	NO	1842
H&P	1840	⑬	13	13	NONE	NO	SMALL SNAIL (LATE TYPE)	NO	NO	1842
H&P	1840	④	4	4	4	No	SMALL SNAIL (LATE TYPE)	NO	YES	1842