

Plate 10

Bavarian Contract Henry Rifle with George W. Briggs' altered magazine loading port, serial number 181. Winchester Arms Collection (Inv. No. W121), Cody Firearms Museum, Buffalo Bill Historical Center. Olin Corporation photograph.

Plate 11

Photograph of Oliver F. Winchester believed to have been taken in 1864. Olin Corporation photograph.

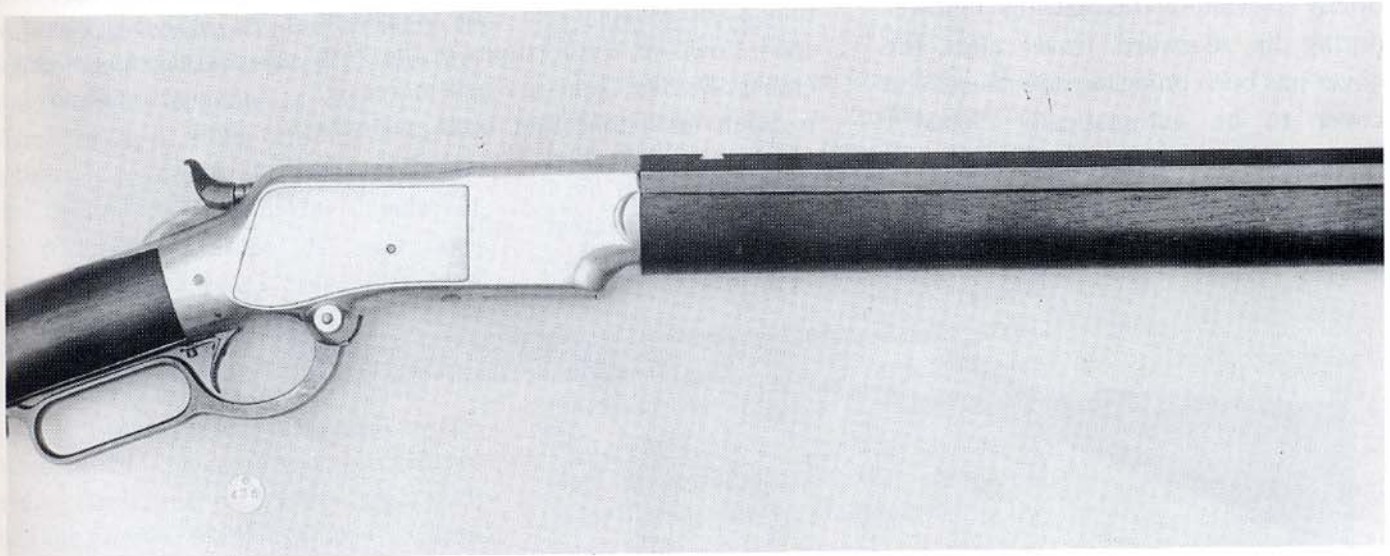


orders for ammunition increased, the percentage of the company's employees working solely on ammunition increased to fifty-five percent⁵⁴.

In contrast to operations under Henry, when arms were manufactured under a contract system, the New Haven Arms Company after June 11, 1864, was solely responsible for manufacturing and paying all employees. Evidently, the experience with Henry had disillusioned the company's directors from reinstating the contract form of production.

While Winchester had evidently given some thought to the expansion of the company's product line to include carbines and .50" caliber muskets as early as July 1863⁵⁵, it was not until mid-1864 that the subject was given any

Described in newspapers such as the **Louisville Democrat** as "the best weapon yet devised by the wit of man," a truer appreciation of the Henry Rifle's worth is to be found in the following statement made by a Confederate soldier captured at the Battle of the Rome Cross Roads on May 16, 1864: "Sir, there is no use in the South fighting men armed as yours are armed."



serious attention. As the Henry rifle saw ever-increasing field use in the Civil War it became evident that its design contained two major flaws. If the rifle were exposed to mud or rain, the rotating collar which allowed the magazine to be charged had a tendency to rust in place, if not properly lubricated; and the magazine tube itself could be fouled by mud or dust entering through the open slot so that cartridges would not feed properly⁵⁶. While these problems would not have been of great consequence in an arm designed for the civilian market, in a military rifle the results could be disastrous. Consequently, the New Haven factory's chief designer, George W. Briggs, was given the task of redesigning the loading sys-

tem so that the problems were either eliminated or at least partially alleviated⁵⁷.

The first design to be developed to correct these problems was incorporated in the 500 Henry rifles (Plate 10) produced under contract for the Kingdom of Bavaria at the Bridgeport plant in late 1864⁵⁸. In place of the rotating muzzle collar used in the standard Henry rifle, Briggs fitted the magazine with a sliding cover which fit over an aperture cut in the magazine tube approximately 6-3/4 inches from the muzzle. To charge the magazine, the cartridge follower was moved forward, as in the Henry, until it was past the sliding loading port cover. The cover itself was then moved forward out of alignment

Top: Plate 12

An 11.3mm caliber lever action rifle incorporating O.F. Winchester's sliding magazine tube loading system built by Weber-Ruesch of Zurich, Switzerland, in March or April 1865. Winchester Arms Collection (Inv. No. W266), Cody Firearms Museum. Olin Corporation photograph.

Bottom: Plate 13

Detail of the Weber-Ruesch rifle illustrated in Plate 12. Olin Corporation photograph.

with the loading aperture and rotated slightly to lock it in an open position, thereby also preventing the cartridge follower from moving rearward under pressure from the magazine spring. Cartridges could then be directly fed into the magazine. When charging was complete, the sliding cover was unlocked and moved rearward to its closed position⁵⁹. While the majority of the Bavarian contract Henry rifles have manually operated loading port covers, several examples are fitted with covers having a small internal lug, which is briefly engaged by the cartridge follower during its rearward travel after the cover has been unlocked and causes the cover to be automatically closed⁶⁰.

Though a marked improvement over the basic Henry magazine design, the Bavarian rifles still embodied one of the earlier rifle's failings: the open slot cut in the magazine tube. Consequently, the design was not adopted for general production.

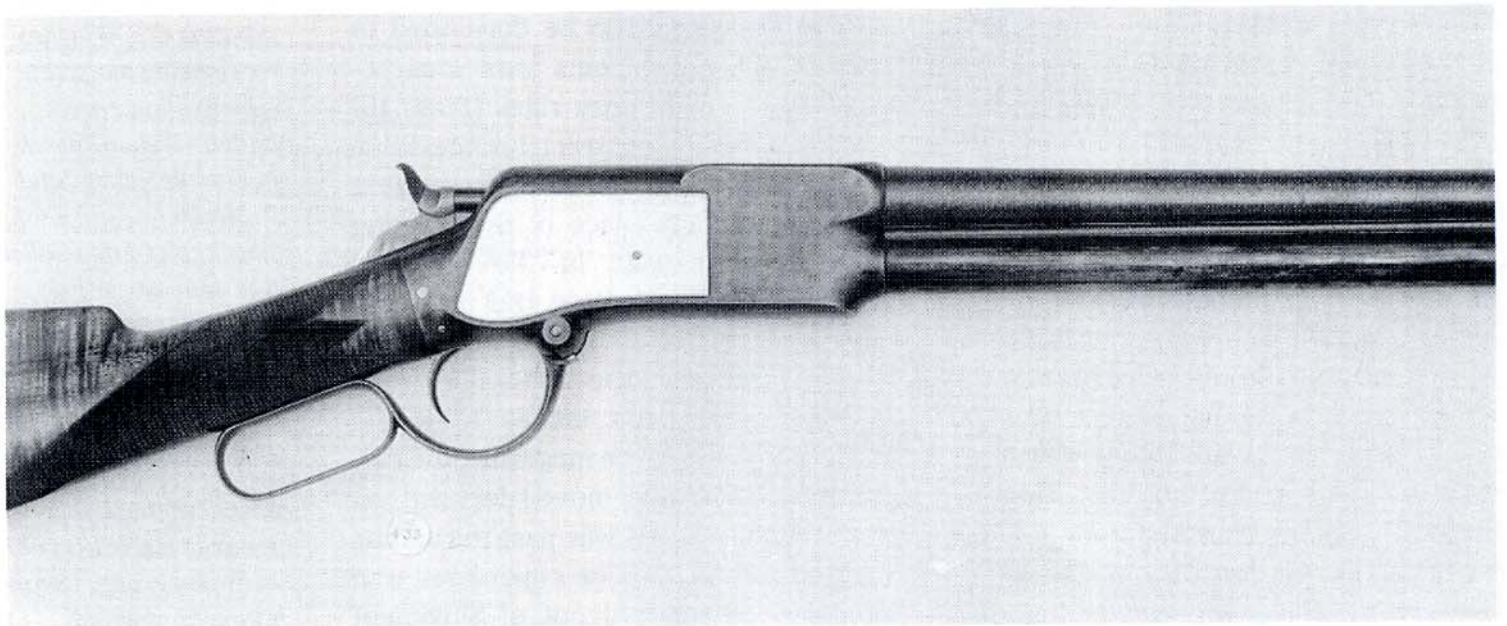
While it has been commonly assumed that Winchester (Plate 11) was involved in the day-to-day operations of the New Haven Arms Company during 1863 and 1864, his almost total involvement with his partnership with John M. Davies at this time precluded anything greater than a supervisory role⁶¹. By December 1864, however, the fortunes of the Winchester-Davies Company had increased to such an extent that both partners

Top: Plate 14

A 16 gauge lever action shotgun incorporating O.F. Winchester's sliding magazine tube loading system built by Weber-Ruesch of Zurich, Switzerland, in March or April 1865. Winchester Arms Collection (Inv. No. W532), Cody Firearms Museum. Olin Corporation photograph.

Bottom: Plate 15

Detail of the Weber-Ruesch shotgun illustrated in Plate 14. Olin Corporation photograph.



55. Letter from O.F. Winchester to the Honorable Joel Hayden dated June 12, 1863. New Haven Arms Company Letter Press Book, op. cit., pages 290-291.

56. Williamson, op. cit., pages 34 and 49. Also, Winchester's Repeating Fire Arms (Winchester Repeating Arms Company; New Haven, CT: 1867), pages 8-12.

57. The attribution of this design to Briggs is based not only on its construction, but also, a pencil sketch of what appears to be the same system which is initialled "GWB" preserved in the Winchester Arms Collection Archives.

58. **Die Entwicklungsgeschichte der WINCHESTER Gewehre** (Weber- Ruesch; Zurich: n.d.), page 3. For further information regarding this source see Note 64 following.

59. See the Bavarian Contract Henry rifle, serial number 181 in the Winchester Arms Collection (Inv. No. W121).

60. For example, serial number 170, preserved in a private Swiss collection (personal communication from its owner).

61. The complexity of the Winchester-Davies partnership's operations is demonstrated by various entries in the records of the R.G. Dun Company, op. cit., Connecticut, Volume 40, pages 208 and 426.

62. Ibid, page 426.

63. John M. Davies, Manuscript Diary for the period Jan. 2, 1865 to Dec. 28, 1866. Entry dated Jan. 15, 1865. Davies Family Papers, loc. cit.

64. Entwicklungsgeschichte der Winchester, op. cit, pages 4 and 5. This 22 page pamphlet (hereafter referred to as Weber-Ruesch) discusses the relationship of Weber-Ruesch with O.F. Winchester and the Winchester Repeating Arms Company from 1858 to approximately 1883. Though undated, it is believed that the pamphlet was printed in 1883 as mention is made of the "neues modell" Hotchkiss rifle with William Mason's improvement as about to enter production.

65. Inventory Numbers W266 and W532, Winchester Arms Collection, Cody Firearms Museum. Cf., T.C. Johnson, F.F. Burton, E. Pugsley, T.E. Hall, et al., **Inventory of the Winchester Repeating Arms Company Firearms Reference Collection** (Lynham Sayce Co.; Salt Lake City, UT: 1991), pages 52 and 88.

66. Inventory Number W532, Ibid, page 88.

67. Davies Diary, op. cit., entry dated June 4, 1865. This entry reads in part "...visit to Paris profitable the French ordered 1000 rifles for Mexico having such improvements as may be made shortly..." The letter press book maintained by de Suzanne contains a letter of thanks to Winchester mentioning his recent "courtesies" that is dated April 26, 1865 (Francois de Suzanne, Letters-3, page 43. Manuscript Book Number 26, de Suzanne Family Papers).

68. Letter from Jane Winchester addressed "Dear Sarah" and dated April 20, 1865. Davies Family Papers.

69. The petition was submitted to the Connecticut State Legislature in May 1865, and published on July 7, 1865.

70. The full text of the letter was copied by Davies in his diary under the date May 21, 1865, presumably the day it was received. Davies Diary, op. cit., entry dated May 21, 1865.

71. The exact date of Winchester's return to the United States is unknown. However, Davies began mentioning dinners and meetings with Winchester as early as June 4, 1865 in his diary (op. cit.) and letters written by Winchester bearing the New Haven headline are known to exist with dates beginning June 10, 1865.

72. Cf., Notes 48, 49, 73 and 74.

73. It is believed that this meeting took place in June 29, 1865, at the offices of the Winchester-Davies Company (Davies Diary, op. cit., undated entry between those of June 27 and 30, 1865). Also the articles of agreement for the Winchester Arms Company were signed July 1, 1865 (Ibid, entry dated July 1, 1865).

74. Ibid.

75. Per the conditions of the Henry Repeating Rifle Company's charter granted by the Connecticut State Legislature.

76. See Note 73.

77. Ibid.