## THE AMERICAN RIFLE.

Upon various occasions in the proceedings of the Lancaster County Historical Society, attention has been called to the importance of the rifle in the early history of the country, and to the fact that the city of Lancaster, and its suburban water powers, furnished a centre from which the bandiwork of certain Swiss mechanics (transported hither) furnished weapons in the most critical periods of American history. It is of much interest to note that in a recent American History the incident is comprehended in all its local and national relations; and the liberty is therefore taken to transfer bodily the following extract from A. C. Buell's "History of Andrew Jackson" (Vol. 1,pp. 72 to 77). It is printed in connection with the statement by Jackson that when he entered what is now the State of Tennessee, in 1788, he had, besides other equipment, "a new rifle, made by Youmans (at Charlotte); long considered the handsomest and best rifle in that region." The historian continues:
"A new rifle! How much those words mean to the progress of civilization in America. How little is known in America of the history of the rifle itself! Volumes enough to fill fair-sized libraries have been written about Whitney's cotton-gin, Fitch's steamboat and Morse's telegraph. But, without the rifle, not one of them could ever have found a place of usefulness or even a chance to develop on this continent.
"From the beginning of the contest between France and England for mastery in North America to the submission of the last remnant of fighting savages-from the downfall of Montcalm to the destruction of Sitting Bull -the rifle has been the sign in which Americans have conquered America. In all the annals of frontier and pioneer; of struggles that wrested the continent from its savage owners and made it a freehold of civilization, the rifle has been the instrument of destiny and the symbol of progress. It is commonly called 'the national weapon;' yet libraries may be searched in vain for the history of its origin and its development. Such a tool in the building of empires ought to be worth at least one page somewhere in the annals of the nation it has created and defended. But thus far that page has been begrudged. Let us write one.

## When Brought to Pennsylvania.

"The art of making rifles was brought to this country in the year 1721, when a small colony of Swiss refugees from religious persecution settled in what was then known as the 'Conestoga country' of Pennsylvania, but now Lancaster. It was a singular dispensation that brought this colony of rifie-makers to our soil under the auspices of the peaceful and non-combatant 'Proprietary' of William Penn and his Quaker progeny. The Quakers of Penn and his progeny were supposed to be the supreme architects of all that was patient and pacific-if not pusillanimous. And yet, their regime gave shelter to a little Swiss colony that in its time produced the most murderous weapon known to the annals of war.
"The origin or the weapon, or the system it embodies, is lost in ob-
scurity. The most that writers on the development of firearms-Blane, Greener, Chesney, Wilcox and Loderhave been able to do is to trace the original principle of grooved bore and rotary bullet to the sources of the Rhine, and its earliest manufacture to the Alpine mountaineers of Switzerland. The Swiss colony that settled at Lancaster, Pennsylvania, in 1721, came from the Canton of Basle or Basel. They were all mechanics and most of them gunsmiths. Prior to their advent the only firearms known in America weresmooth-bore muskets and fowling pieces.

## Evolution of the Rifle in America.

"At first the Swiss at Lancaster made rifles on the model of their own rather clumsy weapons and carried ounce balls. Their barrels were thirty to thirty-two inches long, and were riffed to a twist of about one-half revolution in the length of the bore. The frontier settlers and hunters at once saw the superiority of these rifles to the smooth-bores they had previously used, both in range and accuracy, and the industry grew rapidly. But the type was radically changed. The frontiersmen demanded longer and lighter barrels and smaller bullets. The Swiss gunsmiths at first protested, but the demand soon created the supply. In a few years the short, heavy, large-calibred Swiss 'Yager' was laid aside and the new, distinctive American rifle took its place. In this the type was substantially uniform, though there were minor variations of length, caiibre and weight of barrel to suit the taste or whim of the customer. The standard was forty inches long, fiftyfive inches over all, calibre forty-five spherical bullets to the pound, and veighing, full-stocked, nine to ten
pounds. The barrels were octagonal and of uniform diameter the whole length. This standard type very soon became known throughout the colonies as 'the Lancaster rlfle,' and, prior to the conquest. of Canada, its manufacture was practically monopolized by the town from which it took its name. After 1760 makers who had learned the art at Lancaster branched out for themselves and set up shops all along the frontiers of Pennsylvania and the Southern colonies.

Lancaster the Gunsmith's Home.
"The New England people never took to the rifle in those days, and when the Revolution broke out there was not a rifle-shop in existence anywhere east of the Hudson river. In 1768 Sir William Johnson induced several skilled gunsmiths to migrate from Lancaster, and they set up shops at Esopus, Schenectady, Johnstown and Canajoharie. But the main spread of rifle manufacture from Lancaster was south and southwest. By the outbreak of the Revolution there were rifle-shops at Baltimore, Cumberland, Alexandria, Winchester, Richmond, Hillsborough, Charlotte, Camden, Salisbury and Augusta, whose product rivalled in reputation that of Lancaster itself. The frontiersmen were armed with them almost universally, and many had found their way into the hands of the Indians belonging to the tribes most closely in communication with white tradersthe Iroquois, Delawares, Shawnees, Wyandots, Miamis, Catawbas and Cherokees. The maker of Jackson's rifle, Youmans (spelled Yeomans in some of the old documents), was among the most prominent and suc. cessful on the whole frontier, and his name was a guaranty of excellence.

## Some Old Rifles.

"While the type described as 'standard' greatly predominated, there were some variations, but they were confined to length, weight and calibre. Prior to the Revolution, however, there were but two calibres, aside from that of forty-five to the pound. They were, respectively, sixty to the pound and thirty-two, or balf-ounce. As to variations in length and weight, the author of this work possesses a collection of four historic old flint-lock rifles, made between the years 1753 and 1800. Two of them-one made by Starr, at Lancaster, and one by Jacob Palm, at Esopus, New York, in 1773are of the standard pattern: fortyinch barrels, fifty-five inches over all, forty-five to the pound calibre and nine to nine and a-half pounds in weight, respectively. One, made at Lancaster, in 1753, by Dechert, and used in Braddock's expedition, is four feet long in the barre!, sixty-four inches over all, carries a half-ounce bullet and weighs twelve pounds. The fourth, made by Leman, Lancaster. 1800 (?), and used at Tippecanoe, the Thames and New Orleans, is thirtyeight inches in the barrel, fifty-three inches over all, calibre sixty bullets to the pound, and weighs eleven pounds. Reduced to modern calculation of calibre by hundredths of an inch the half-ounce bullet represents calibre 0.56 ; the forty-five to the pound, 0.45 (the two systems meeting at that point); and the sixty to the pound, calibre 0.38 .
"These may be considered the extremes of variation at any time prior tu, say, 1825, or during the period of the fint-lock.

Who the Makers Were.
"The names of the early rife-makers bespeak their Swiss origin: Gas-
pard, Dechert, Busch, Leman (or Lehman in the old documents), Loder, Youmans, Riddel, Sneider, Stengel, Mayesch, Palm, Volvert, Franck, Follecht (or Folleck), Drippard, Gresheim, Lennard and others of less note. A little later, when English or NorthIrish colonists had learned the art, such names became famous as Hawkins, Bosworth, Bartlett, Ludington, Best, Starr and Reynolds.* The manufacture of rifles had become so important an element of military strength at the outbreak of the Revolution that the Continental Congress in 1776 took virtual possession of the Lancaster shops and also those at Baltimore and Alexandria, fixed a 'government price' and required the makers to deliver all their product to the army. Among the old records of that Congress is an order for the arrest and detention of Louis and Michael Busch, of Lancaster, for 'disregarding the ordinance of the secret committee.'
"The foregoing sketch may seem a trifle digressive, but it is ress so in a history of Andrew Jackson than in that of any other man. Hardly anyone will except to the suggestion that the corner-stone of his temple of fame was laid by the riffemen of Tennessee and Kentucky at New Orleans. What might have happened there with the rifle left out and only cannon and smooth-bore muskets to defend the Louisiana Purchase is not a pleasant theme for speculation. But the rifle was there, and there was the scene of its crowning glory; where its fame and the name of Jackson were interlinked in immortality."

That this good old town of Lancaster was for many years afterwards the "home of the rifle" is confirmed by a

[^0]letter written by Thomas Jefferson, dated at his home, Monticello, August 18, 1813, in which he gives a sketch of Lewis, who was of the famous "Lewis and Clark," explorers of the territory of the Northwest. This letter is to be found in many books, but is perhaps most accessible in Riverside Biographical Series, by Houghton, Mipflin \& Co., Boston, 1901. The clause reads as follows:
"While attending at Lancaster to the fabrication of the arms with which he chose that his men should be provided, he had the benefit of daily communication with Mr. Andrew Ellicott, whose experience in astronomical observation, and practice of it in the woods, enabled him to apprise Captain Lewis of the wants and difficulties he would encounter, and of the substitutes and resources afforded by a woodland and uninhabited country."

The Andrew Ellicott referred to in the above quotation from one of Jefferson's letters was in his day and generation one of the notables of this country, and one of Lancaster's most distinguished citizens, being at once a surveyor, civil engineer and mathematician, and distinguished in each of these branches of knowledge. He was born of Quaker parentage, in Bucks county, on January 24, 1754. In 1770 his father bought a large tract of land on the Patapsco river, in Maryland, where, a few years later, he founded the town of "Ellicott's Mills." Young Ellicott was married in 1775 to a Miss Sarah Brown, and removed to Baltimore, becoming a member of the Maryland Legislature.

His mathematical pursuits brought him to the notice of such men as Rittenhouse, Franklin and Washington. In 1789 the latter commissioned him to survey the boundary between Pennsylvania and New York. It was his
survey that gave us a frontage of forty odd miles on Lake Erie. In 1790 he was named, along with a French surveyor, L'Enfant, to lay out the city of Washington. He did all the surveying connected with that enterprise and plotted the new cit. v . Unfortunately, most of the credit for that undertaking is credited to the Frenchman.

In 1792 Mr . Ellicott was appointed Surveyor General of the United States. In 1795 he superintended the construction of Fort Erie, now Erie, Pa., and was also employed to lay out the towns of Warren and Franklin. In 1796 his friend, Washington, appointed him United States Commissioner to determine the boundary between the United States and the Spanish possessions on our southern borders. That work accomplished, Governor McKean, of Pennsylvania, in 1801, appointed him Secretary of the State Land Office, which he held until 1808. Lancaster being at.that time the State Capital, he moved to this place. His residence was on the southeast corner of Prince and Marion streets; a small house adjoining was used as his offlee. He resided in this borough eleven years. Being appointed Professor of Mathematics at the West Point Military Academy, he removed to that place in 1812, where he remained until his death, in 1820. He was not less eminent as an astronomer than as a mathematician. He contributed many papers to the American Philosophical Society, of which he was a distinguished member.
Author: $\quad$ Hensel, W. U. (William Uhler), 1851-1915.
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[^0]:    +The grandfather of General John F. Reynolds. killed by a rifle-bullet at Gettysburg.

