

brass, and of steel, and of gold, and of silver, and of precious ores, which were in great abundance." (II Nephi; 5: 15.)

Among other industries, the manufacture of weapons of war received attention.

"And I, Nephi, did take the sword of Laban, and after the manner of it did make many swords."

Nephi had had a long experience in the art of working in metals. When the task of building a ship to cross the ocean was imposed upon him, he made his tools from the crude ore taken from the earth. He constructed a forge, using the skins of animals wherewith to make a bellows to blow the fire. He was acquainted with the process of converting iron into steel; and, perhaps, possessed (the afterwards lost and again discovered) secrets of that art. It is well known that the ancient city of Damascus was made famous throughout the world by its steel manufactories, and especially by a particular sword called the Damascus blade. Among the equipments which the Lehite colony took with them when they left Jerusalem was a weapon called a bow, made of "fine steel." It was used by Nephi for killing large game in the wilderness. His brethren also had bows. They were evidently made of metal, as we are told that Nephi broke his bow, and "their bows had lost their springs," and they found great difficulty in procuring food. As the sword can be used as a weapon only in hand to hand encounters, other weapons were made to be used against enemies at a distance upon the open field, behind forts, etc. These consisted of such primitive arms as were in use among other nations of that early period. In later times we read that the Nephites armed themselves with swords and with scimitars, and with bows, and with arrows, and with stones, and with slings, and with all manner of weapons of war of every kind." (Alma 2: 12.) We find also that for personal defense they used breast-plates, arm-shields, and head-plates. Other weapons are mentioned without a name or description being given of their character or use. They were probably engines for projecting stones and other balliste, such as were employed by Titus in the siege of Jerusalem.

It is not likely that the rude and clumsy weapons made of stone, bone, obsidian, etc., the relics of which have been found in great abundance, were the kind of arms used by the Nephites. They had iron, steel, brass and copper in abundance within easy reach all the time, and possessed the requisite skill and industry to work these materials

into convenient shape for effective warfare. On the contrary, the Lamanites had very little inclination to cultivate the arts and sciences or undertake any enterprises. They were degraded, idle and ferocious, and yet cunning enough to turn to their advantage the resources and means at hand. They killed the animals of the forests for food, clothed themselves in the untanned skins, and lived in huts, and caves of the rocks. By constant exposure to the untempered elements their skins became tanned and dusky, and their once fair and comely appearance was changed to visages of frightful aspect and forms repulsive and savage. These people were probably the masters of stone hatchets, spear heads, arrow points, etc. The smelting of metals, the artistic labor required to fashion the iron, steel, copper and brass into the shapely bow, sword, breast-plate and polished helmet were more than they with their dispositions could attempt. They contented themselves with such native materials as the earth, and the animals they slew, furnished them. And these natural products would resist the ravages of time and be preserved while objects of more delicate texture and of far more intrinsic value would perish. But the remains of metal weapons, finely wrought, have been found in great variety and abundance. We read of the discovery of "celts," a kind of chisel or adze, scrapers, scissors, knives, lance and arrow points of different forms, all made by hammering pieces of native copper. At Swanton a copper hatchet was found originally provided with a wooden handle, of which fragments at the discovery still remained. Short gives an account of copper axes, carefully wrapped in very well preserved cloth, being discovered. And in January, 1876, excavations in a mine in Illinois brought to light several turtles in beaten copper, of remarkable workmanship.

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(To be continued.)

THE TERRITORIAL FAIR.

In the band contest Monday, October 5 the first prize of \$75.00 and a gold medal was awarded to the First Brigade band of Salt Lake. Dr. Fisher, the Ogden judge protesting.

The rush to the grounds set in before ten o'clock this morning, and before eleven the halls and grounds were swarming with people. The exhibits were largely increased during yesterday. But there is still some space to be let in the main hall, and a few exhibitors have not taken the best advantage of the space given them. But another day will undoubtedly make the exhibition in every respect perfect and complete.

W. P. Woodruff, of Ogden, brought in a large shipment of cases of apples

and pears which have attracted universal attention.

In the Centerville exhibit a lot of second crop strawberries were uncovered that have caused no little gastric yearning among the visitors.

Mr. Elias Morris, of Salt Lake, has put on exhibition a large variety of cement mosaic of home manufacture which is worthy of special notice. It is a product of Portland cement and marble chips which is susceptible of high polish, and all sorts of artistic and fantastic designs in the manufacture. It is more attractive and less expensive than marble.

The Keenan & McCready Preserve Company have spread out for inspection a large assortment of preserved and pickled goods. They have on exhibition 27 varieties of pickles and other canned fruits in the same proportions. The company began business less than a month ago, and the advance they have made is expressed in the fact that last week 10,000 pounds of jellies alone were turned out.

The Agricultural College has placed on exhibition a large assortment of vegetables and grasses, which have been the basis of experiment there during this year. In the collection are 35 varieties of wheat, 30 varieties of oats, 7 varieties of barley, 18 varieties of forage grasses, 14 varieties of corn, 48 varieties of peas, 12 varieties of beans, 5 varieties of table beets, 11 varieties of sugar beets, 35 varieties of cabbage and 12 varieties of potatoes, all of which have been under experiment at the college.

Other attractive exhibits are those of the Singer Sewing Machine Company, who have on the boards an infinite variety of artistic sewing work; the Warren Mercantile Company, pianos and organs; Rowe-Morris-Summerhays manufacturers of fine tanned and died pelts and moroccoes; Salt Lake Music Company, pianos and organs; John Manning, trunks; James Gallagher, trunks; Pacific Lumber Company, carved mouldings, etc.

In the mineral exhibit has been placed on exhibition this morning, a large collection of views of the Park City mining district. The collection comprises photographs of the underground works taken by flash light exposures. In it every interesting feature of Park City's mining and milling operations is exhibited.

The part of the mineral corner that has attracted most attention is the big galena sample from the Sun Down mine at La Plata. The sample weighs 1920 pounds, and is a compact mass of lead ore which assays 83 per cent. lead and \$5 in silver per ton.

In the south hall up stairs Mr. Jos. Mills has on exhibition something interesting in the line of jack-knife carving. Mr. Mills, ingenuity and patience have combined in the production of a combination picture frame having 2500 pieces and put together without glue or nails. The Architect of this and a number of other similar products is preparing to raffle them off during the closing days of the Fair.

Another piece of mechanism is put on the forms by a Utah genius who proposes to revolutionize bicycling by supplanting shank muscle with a spiral spring for propelling power. The machine may be seen in the south extension of the lower floor.