Awakening of Utah's Interest in Wielders of Rod and Gun

ISHING and hunting were among the earliest occupations followed by the inhabitants of this country as a means of subsistence;

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in fact, fishing and hunting were the chief means of support employed by the savages when the country was discovered by Christopher Colum-The streams and lakes of the bus. country, at that early day, and down to the period less than a hundred years ago, were full of all kinds of fish. Shad, herring and other migratory fishes annually ascended the rivers flowing into the oceans, and every mountain and inland stream was filled with trout.

That the Indians of those days depended largely, if not wholly, upon fishing for a living is evident in many parts of the country, as upon the sites of ancient campfires still to be found in eastern states are fish bones in the ash piles. Piles of shell fish, on the coast of the ocean, have also been found with various stone implements, spears and hooks, fahioned by the red men for the capture of the finny tribe. Archaeologists and relic hunters on the old fishing grounds have every year found numerous spear and gig heads, showing that spearing and gigging were extensively practised among the Indians.

Harriot, a writer of 1585, quaintly describes the Indian methods of fishing as follows:

"They have likewise a notable way to catche fishe in the Rivers, for wheras they take both yron and Rodds the hollow tayle of a certain fishe like to a see crabb, in steede of a poynte, wherewithe by night or day they stricke fishes and take them off into their boates. They also know how to use the prickles and pricks of other fishes. They also make weares, with settings up receles or twigs in the water, and they soe plant one with another that they growe still narrower and narrower, as appeareth by this figure. There was never seen among vs so cunninge a way to take fish withall, whereof sondrie sorts as they founde in their rivers vylike vnto ours, which are also of a verye good taste. Doubtless yt is a pleasant sighte to see the people, sometymes wadinge, and goinge sometymes sailinge in those Rivers, which are shallowe and not deepe, free from all care of heaping opp Riches for their posterite, content with their state and living friendye together of those things which God of his bountye hath guiv vnto them, yet without gluing hym any thankes according to his desarts."

Harrist goes en to tell how the Indians cooked their fish after having caught them:

"After they have taken store of fishe, they gett them vnto a place fitt to dress yt. Ther they stricke opp in the ground 4 stakes in a square roome and lay 4 vpon them and others ouer thwart the same like vnto an hurdle and sufficient heighte, and laying their fishe

vpon this bundle they make a fyre underneath to broile the sa ie. For this people, reserving nothinge for store, and do broile, and spend away al att once, and when they hauve further needs they roste or seethe fresh as we shall see hereafter. And when as much holde all the fishes, they hauge the rest by the fyrres on sticks sett vpp in the grounde against the fyrres, and then they finishe the reste of their cookerye. They take good heede that they bee not burntt. When the first are broyled they lay others on that weare newlye brought, continuinge the dressinge of their neate in this sorte vntil they thincke they have sufficient." Westward the course of fishing and hunting took its way, and the advance posts of civilization, in the shape of trappers of the Hudson Bay company and the hardy sailors and "voyageurs' dispatched by John Jacob Astor for the founding of the town of Astoria on the Oregon coast were among the events of the early years of last century. Passing through untold dangers, at the constant risk of life and limb, these men heralded the enormous resources of the great west in fish, game and fur-bearing animals to the world, and others came to seek the treasures of mountain. wood and swift flowing stream.



Sharp's administration of the office are very gratifying indeed.

In January, 1907, H. B. Cromar was named as fish and game commissioner of the state of Utah. Mr. Cromar has had a great deal of experience in the line of fish and game, and also in handling

ing legislature has added to or taken away somehigh registrative has build up of the subject, but even now, after years of experience and legislation in fish and game industry of the state, it is found desirable to amend in many respects the statute now in force upon the law books of the common-

wealth John Sharp was state warden when the present hatchery was built. It was thought at the time of its erection that it would serve the interests of the state sufficiently for many years, but it has become woefully inadequate as a source of new stock for the streams of the state when the onn Sharp new stock for the streams of the state when the extent of the depletion of those streams every year, and that by sportsmen alone, is consid-ered. The building was placed in close prox-imity to some natural ponds of water, and it was thought with the troughs inside for hatching purposes and the ponds outside for rearing pur-poses, fish propagation could be carried on in a sufficiently even size memory to fill all denot poses, his propagaton could be carried on in a sufficiently extensive manner to fill all depart-ments of the Utah streams for many years to come. The legislature had appropriated enough money to erect the building, but that was about all. Subsequent legislatures have met and wrestl-ed with the problem of how to provide funds for the extension of the fish and game plant of the state but there were always so many other for the extension of the lish and game plant of the state, but there were always so many other pressing necessities staring the state in the face that the question was never satisfactorily solved until a happy thought took possession of the state legislature of 1907. Following in the footsteps of older states, which had rightly concluded that the privilege of hunting for game and angling for fish within the confines of the commonwealth was worth a small consideration from each in-dividual avereight that privilege the simple exdividual exercising that privilege, the simple ex-pedient of assessing residents of the state \$1 for such privilege, and those not residents of the state \$10 and aliens \$50 was resorted to, and lo, the problem had attained its solution!

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fax was in effect, and comparative figures for 1808: Receipts from licenses to Oct. 30, 1907 ..\$ 17,646.00 Receipts from licenses to Oct. 50, 1908 ... 19,571.00 Receipts from licenses for year 1907 ... 21,548.00 Estimated receipts for year 1908 based 24.000.00 on above

To one who has given little thought to the matter, the number of fresh water streams in the state bearing trout is surprising. With-in a radius of a very few miles of Salt Lake City, for instance, are the streams of City creek, Emigra-tion canyon, Parley's creek, Big Cottonwood and Little Cottonwood, call of them rising from springs in Cottonwood and Little Cottonwood, all of them rising from springs in the fastnesses of the snow-clad mountains. And in every range from the north end of the state to the extreme southern boundary, and from Uintah on the cast to the limits of Juab and Millard on the west, the streams are innumerable and capable of supplying the coun-try contiguous with plenty of fish-ing sport and fishfood. To success-fully police the numerous straams for the purpose of preventing dyna-miting and other unlawful destrue-tion of game fish is a problem also crying out for solution at the hunds of the legislature.

HATCHERY AT SPRINGVILLE.

To enable the fish and game com To enable the han and game com-missioner to more equitably and quickly supply the demands of the fish streams in the southern portion of the state. Commissioner Cromar advocates the establishment of anadvocates the establishment of an-other hatchery of equal capacity to the augmented Salt Lake plant, at Springville, Utah county, and an egg supply station at Fish Lake in Sevier county. The latter is an ideal spawning ground, and with some attention and compensation some attention and comparative small expense could be made to yield millions of eggs which i yield millions of eggs which it would be no trouble to bandle at the Springville and Salt Lake hatcheries. The southern portion of the state could be supplied con-veniently from the Springville hatchery, and the northern streams from the Salt Lake plant, making the supply secure and according to the supply secure and accessible (every stream in the state.

FISH SHIPMENTS.

From the present hatchery at Murray more than 2,000,000 trout fry have been shipped to the different streams of the state during the present year. The spring shipments were entirely of brook trout, and were distributed among the streams of the state as follows

County. Rich	No. of Fry.
Rich	50.000
Boxelder	
Davis	
Grand	
Juab	
Cache	
Salt Lake	
Sanpete	
Summit	
Tooele	
Utah	50.00
Kept at hatchery	
Total	

The fall shipments consisted of native trout fry and were distrib uted as follows

County.	No. of Fry.
Boxelder	
Beaver	75,000
acho	
Davis	50,000
Smery	
Morgan	75,000
Sannete	
anmult	
alt Lake	
Popele	50,000
Itah	
Wasatch	
Weher	
fall shipments	1,150,000
	and a second second second second

Grand total2,085,000

Between 200,000 and 300,000 trout

Between 200,000 and 300,000 trout fry remain at the hatchery at pres-ent, and one or two shipments are yet to be made to different parts of the state, so that the numbers above given are conservative figures and will be exceeded by the end of the tributed among the waters of the state. If the new addition to the Salt Lake hatchery is au-thorized, and the hatchery at Springville as well as the egg supply station as proposed at Fish Lake, for all of which purposes there will be available ample means from the fish and game fund, Com-missioner Cromar says that three years will see the streams of the state stocked up to their normal ample means from the fish and game fund, Com-missioner Cromar says that three years will see the streams of the state stocked up to their normal condition and the supply of fish for sporting and food purposes will be sufficient for the state even though its population be doubled. In addition to the regular state supply of trout, the Rio Grande Western Railroad company has planted about 200,000 fry in the streams of the state adjacent to its line of road in Utah. The fish ponds are supplied with fresh water from Spiring Creek through a main supply canal, 284 feet long by 5 feet wide by 2½ feet deep, and a secondary canal 1585x2½. The supply can-als are of reinforced concrete, the same as the ponds, and the whole plece of work was com-pleted June 4, of this year. It is the idea of Commissioner Cromar to sink eight artesian wells in the neighborhood of the hatchery, for the purpose of insuring a supply of fresh water in case of accident or breaking to the natural supply. One of these wells would be for the culinary use of the cottage on the grounds. Water can be had at a depth of from 70 to 90 feet in the vicinity, as has been at-tested by the sinking of a number of wells near by, and at a cost of about \$1 per foot of depth y to 90 feet. VARIETIES OF FISH.

Thus did Captain Ashley pitch his tents on Utah lake, and Jedediah Smith, with Etienne Provost, Peter Skeen Ogden, Jim Beckwith, "Pegleg." Smith, trap out the Bear river, Ogden and Weber rivers, the streams and forests of Cache valley and other places in this state as early as the third decade of the nineteenth century.

Utah was once as fertile a trapping place as any portion of the great west. Its mountain streams fairly bristled with trout; its forests were a paradise for game. 'Two-thirds of a century's constant drainage on the natural supply, however, has greatly depleted the stock of fish and variety of game to be found within her borders, and it became apparent many years ago that some action must be taken to preserve the supply, and to increase the same by artificial means, if the kingly sports of hunting and fishing were to be longer enjoyed in the commonwealth.

FIRST GAME COMMISSION.

Thus the territorial government, early in the '70's, began to cast about for means to prevent the wanton destruction of the stock of fish and game of the state, and to rehabilitate the streams and forests with their native inhabitants. A man for the position was found in A. Milton Musser. who with ability and faithfulness, serving without pay, performed the duty of territorial fish and game commissioner for nearly two decades. He stocked many of the streams with great numbers of fish, at a cost of nothing to the territory, and will ever be remembered by the lovers of nature's sports in Utah for his invaluable services in that respect.

In May, 1896, John Sharp, succeeded Commisstoner Musser as territorial fish and game warden, and he served continuously until two years ago in that capacity. When statehood was granted Utah, Mr. Sharp was confirmed as first state fish and game warden. It was under his direction that the state fish hatchery east of Murray was authorized and carried to completion, and millions of fish fry were brought into the state and distributed to the various streams, and many good laws looking to the protection of fish and game were placed on the staute books during Mr. Sharp's incumbency. And, working, as he did, with the ever-constant lack of funds in the department with which to reach out in the way of improvements, the results achieved during Mr.

men. He has been handicapped to some extent by the depleted treasury staring his department in the face until the income provided by the issuance of sportsmen's licenses began to come in. but even then the legislature did not provide for the carrying on of the department from those funds, consequently at the end of the present year, funds, consequently at the unit of follars in the the department, with thousands of dollars in the treasury, is almost "up against it" for means treasury, is almost "up against it" for means with which to carry on the current work of the department. Under Mr. Cromar's administration the im-

provements in the state hatchery have been car-ried out, which place it in shape to handle all the eggs, fry, fingerings and fish that the present hatchery can produce for many years to come.

The State Fish Hatchery

NWO miles east of Murray, on the waters of Spring creek, is situated the state fish hatchery. For perhaps a dozen 乙 years prior to the present season the

plant consisted of a lumber building about 20x60 feet in dimensions, fitted out with 19 hatching troughs 18 inches wide, 4 inches deep by Is feet long. With this meager equipment near-ly all the fish fry turned into the waters of the state have been produced, and while the supply has not been all that could have been desired, under the circumstances the output has been ex-tension certaining.

tremely gratifying. The element which has always operated against the progress of the fish hatchery is the lack of funds. This was the cry when first the fish and game department was established in early territorgame department was established in early territor-ial days, and up to the last two years has been the constant undesirable accompaniment to every attempt to reach out in the direction of adding to the plant or increasing the means by which to restock the depleted streams of the state. When A. Milton Musser, the first territorial fish and game commissioner, took hold of the depart-ment under the act of the legislature, he found nothing in the department but the statute au-thorizing its establishment. No equipment, no funds. It was

easy to see the necessity, even in those days, for stopping the ravages being made upon the game and fish game and hsh supplies of the streams which forests and had been going on since the earbit since the ear-ly days of last century. The streams which once were fairly alive with moun-tain trout were rapidly becoming stripped of their finny inhabitants and the need for some action by the law-making power of the state became im-

state became im-perative. The various a n d numerous fish and game laws in force at different times in the state, were the outgrowth of the conditions t he conditions existing, Almost every succeeed-

INCOME FROM LICENSES.

Immediately it became apparent that the old cry immediately it became apparent that the old cry of "no funds" was to be forever eliminated from the vocabulary of the state fish and game com-missioner. The drooping spirits of the devoted disciples of Izaak Walton were at once revived, and hopes theretofore vaguely entertained for heavily stocked trout streams became more like a reality of the near future. What the \$1 license fee has done seems remarkable. While the fee is very small, and scarcely felt by the individual sportsman vet in the aggregate it means a great sportsman yet in the aggregate it means a great deal for the fish and game fund, for the improve-ment and extension of which the fund is solely to be used. Following is a brief summary of receipts from the license fund of 1907, which was the first

Thus it will be seen that the means has been placed in the hands of the fish and game commis-sioner of the state, under the direction of the governor and legislature, for the building up of the greatly exhausted resources of fish and game within the confines of the state of Utah.

IMPROVEMENTS AT HATCHERY.

IMPROVEMENTS AT HATCHERY. Taking advantage of the provisions of the law in relation to the expenditure of part of the above fund, State Fish and Game Commissioner H. B. Cromar, has made a number of substantial and much needed improvements at the state hatchery above Murray. In the first place, the commissioner secured the services of a capable assistant, who had had many years of experience in handling different varieties of fix. Mr. E. N. Jacklin, a trout expert, was employed as super-intendent of the hatchery, and though the re-muneration provided by law for such assistance is very meager indeed, yet Mr. Jacklin's enthus-iasm is such that he makes everything count for the best, and his efforts should be rewarded by provision of the next legislature. Under the direction of Commissioner Cromar, 10 new fish ponds have been constructed at the hatchery. The ponds are built entirely of rein-forced concrete, with iron bars extending both vertically and horizontally through the heavy ma-terial, and are practically everlasting. There are three large ponds the dimensions of which are 159x10x3 feet deep, and seven ponds, \$1x10x3 feet. Each pond has a runway 30x½x3, and there is one waste ditch at the foot of the ponds, 140x 4x4 feet in dimensions to carry off the water pass-ing through them. These ponds furnish ample room for all the fish

ing through them.

These ponds furnish ample room for all the fish that can be produced at the hatchery, and will be sufficiently large to take care of the fish fry for sufficiently large to take care of the nsh fry for many years to come. The ponds cost \$1,000 to build, and are composed entirely of concrete. Be-tween the ponds are spaces of ground, which will be worked into beautiful lawns as time goes by, and the practical views of Commissioner Cro-mar are shown in the fact that between the ponds and the land surrounding has been planted to apple trees

and the lanu surround apple trees. A substantial brick cottage has also been er-ected at the hatchery site for the superintendent, at a cost of \$3,000. Mr. Jacklin is therefore al-ways on the ground and on hand to carry out any policy calculat-ed to benefit the oblige industry

fishing industry of the state, in which both he and Mr. Croman and Mr. Cromar are deeply in-terested. In the hatch-ery itself many

i mprovements are to be made. It is hoped that the legislature will authorize the enlargement of the hatchery to just double its present capacity, which will make it possible to put out about 5,000,000 trout

5,000,000 trout fry per year. With say 30 more hatching troughs, and 50 rearing troughs proposed by the fish commis-sioner, a very few years would suffice to place enough trout fry in the streams of the state to bring them back to their primitive pleth-oric condition.

VARIETIES OF FISH.

Up to the present time only native trout and brook trout fry have been distributed among the state waters. The brook trout are rapid growers, and for this reason are desirable as a stock fish. They ae not as game as the native, however, and do not take to artificial baits as readily as do the native varieties. They are properly called "brock" trout, and belong in mild, fresh water streams, where there are no heights to be scaled. The brook trout will not go against the current. They can stand a great deal of cold and considerable heat, and for ordinary purposes and private ponds are very desirable for their quick growth and de-lightful eating qualities. As is well known to fishermen on Utah streams, the native trout is game from the stillest water to Up to the present time only native trout and

Are very desirable for their quick growth and we lightful eating qualities. As is well known to fishermen on Utah streams, the native trout is game from the stillest water to the top of the most strenous streams of the mountain tops, and renders no jot or tittle for excellence in eating qualities or gameness or "stay-withiliveness" to any other fresh water inhabitants; the only undesirable feature with the native rout being, that he takes his time in growing; a brook trout, or a rainbow trout, will put on eight or nine inches in a year, whereas a native requires about two years to attain the same growth. And while it is the intention to keep up the stock of native fry and to constantly replenish the streams with this delectable variety of brain-making food, it is also the desire of the commissioner to stock the streams with other rapid growing varieties, and to that end systematic steps have been taken to secure a supply of the rainbow trout is so named from his many colored sides, and his appearance, in fact, is in great resemblance to the rainbow. One of the large ponds at the hatchery site has been devoted to this varlety of fish, and a stock is being built up so that by next year fry of the rainbow species may be distributed among the state waters. Some of the points of excellence of the rainbow variety in addition to his rapid growth, are his climbing propensities, it being asserted that he will climb a mountain stream to a height of 10,000 feet if possible; he is also extremely game, fises readily to artificial bait and is of unsurpressed table quality. He will also stand just as much cold as the brook trout, and does not object to such heat as is usual to the mountainous country. FOUR AGES OF FISH.

FOUR AGES OF FISH.

FOUR AGES OF FISH. There are four stages in the life of a fish. He is first an egg, requiring in a natural state from four to six weeks to hatch, when he becomes a fry. When he attains a length of about two inches he is designated a fingering, and he sails under this appelation until he emerges at a length of six in-ches, as a full fledged fish. When he is seven inches iong, he becomes the legitimate prey of the sportsman angling with rod and line, said word angling being defined to mean "to be fishing with a fishing rod or pole held

(Continued on page thir teen.)



In hundreds of ways the world's progress is leading it toward conceptions of economic values that have long been Mormon household views. Leaders and colonizers of the Church often spoke out in a day when it was much less popular than

now, demanding that every member of a community so live that his activities should yield to the commun-ity's general weifare. Much of the n-tion's serious effort today to reclaim wasted forest lands, to restore almost totally de-

stroyed species of native fauna, and to preserve to the people the natural resources of the country, grow out of previous prodigality and unconcern in the midst of plenty. As the pioneers worked their way westward up the long valley of the Platte they reached the "buffalo country" about May 1, 1847. Many of the younger men rushed out for a hunt at Grand Island, and this brought to Brigham Young a problem of which his solution was as decisive and rapid as that which always

characterized his actions. After narrating the day's sport, Whitney's history, vol. 1, page 309, continues: "The proceeds of this buffalo hunt, one bull, three cows, and six calves, were carried to the camp in five wagons, temporarily un-loaded for the purpose. The meat was equally distributed among the tens, each company receiving about one durates

loaded for the purpose. The meat was equally distributed among the tens, each company receiving about one-quarter. "After the day's sport the president instructed his men not to kill game wantonly as was the custom of many who crossed the plains,—a custom which has done much to render the buffalo race extinct. "If we slay when we have no need," said he, "we will need when we cannot slay." Contrast this sentiment with that of a contemporary,—a mountain man who for half a century before the ploneers came dwelt in the mountains of the great northwest: "My cances having come up," wrote Alex-ander Henry in the diary he kept while a Red river trapper, "I desired them to wait for the Indians. We buttes came within 10 yards of us of a sudden we would fire a volley of 25 guns at them, killing and wounding many, of which we took only the tongues. The Indians suggested that we should all fire together at one was within six or eight paces, when a yell was given and all hands let fly. The Indians enjoyed the sport highly. It is true the ammunition cost them nothing."