

be done with it. Scientists in many countries had been working on it, the greatest success being attained in France and the United States. Then it was found that the firms in each of these countries had knowledge and patents which were valuable to the other, so they combined forces.

The method consists in using bars of cast iron as anodes of huge wet batteries, the liquid being a solution of iron chloride. The cathode, the other terminal of the battery, consists of a bar of steel, and when the current is passed through, the iron dissolves from the cast iron bar into the liquid, and at the same time is deposited from the solution onto the steel bar.

The iron deposited on the steel bar forms a cylinder, up to a quarter of an inch thick. The metal, on the inside, next to the steel, which is deposited first, is full of hydrogen, which makes the iron brittle, but this gas is removed by passing the cylinder through an oil-heated furnace. A stripping machine is used which enlarges the diameter of the iron tube, so that it may be slipped off the steel cathode, which is used over and over again. The tubes may be used as they come from the machine for some purposes, or they may be flattened, or slit and made into plates from which other iron objects may be made.

Since only iron is deposited by this process, it is suggested that waste iron from dump heaps might be reclaimed by dissolving in the iron chloride solution and recovering it electrolytically.

PIKE, "PRESIDENT'S FISH", HAS HAD NOTABLE HISTORY

The pike, the big, hard-fighting game fish that has received much publicity lately through falling victim to the Waltonian prowess of President Coolidge, is a creature of high historic traditions, according to Lewis Radcliffe, U. S. Deputy Commissioner of Fisheries. His fame goes back to Roman times at least, for Mr. Radcliffe has found a verse about him in the works of the Latin writer Ansonius, which translated reads:

"The wary pike, 'midst wrack and rushes hid,
The scourge and terror of the scaly brood
Unknown at friendship's hospitable board,
Smokes midst the smoking tavern's coarsest food."

According to Mr. Radcliffe the high esteem in which it was held is revealed in that during the reign of Edward I, the King fixed the price at double that of the salmon and over ten times that of the cod. As late as the Reformation a large pike equalled in value a lamb and a small one more than a fat capon. The pike was introduced into England about 1532. An old couplet ran -

"Turkies, Carps, Hops, Pickerel, and Beer
Came into England all in one year."

"Izaak Walton devotes an entire chapter to observations and directions for fishing for the Luce, or Pike, recounting the antipathy between the pike and some frogs," says Mr. Radcliffe. "Of a method of cooking the pike he states: "This dish of meat

is too good for any but anglers, or very honest men; and I trust you will prove both, and therefore, I have trusted you with this secret.'

"A very old work in the heraldry of fish recounts that 'the Pike of the fisherman, the tyrant of the river, is the Luce of heraldry. There is no earlier example of fish borne in English heraldry than is afforded by Pike, in the arms of the family of Lucy, which was of Norman extraction.' This coat of arms bore three white pike on a red background.

"The true pike is a voracious fish, destroying everything within its reach and consuming other fish, water birds, and mammals. At times it attains a length of four feet and a weight of forty pounds or more. It is taken by trolling, skittering, with the fly, or by using live minnows for bait. In skittering a small frog or frog-leg, a minnow, or a piece of perch belly may be used.

"There are several other species belonging to the Pike family including the muskellunge, which reaches a weight of 100 pounds or more, and several smaller species commonly called pickerel. In Canadian waters, the pike perches, a wholly unrelated species, are termed pickerel. There are two commercially important species, the blue pike (perch) and the yellow, numbered among the most important food fishes of the Great Lakes."

WOULD RECOVER OIL BY MINING METHODS

Sinking mine shafts into oil-bearing rocks instead of merely drilling wells, is the method proposed for the more complete recovery of the precious liquid mineral by Leo Ranney, a New York engineer. A number of important oil companies have become interested in his process, and field tests on a large scale are a probable development for the near future.

The present method of sinking wells, Mr. Ranney explains, simply makes holes into the oil-bearing sandstone, and at best only about one-fifth of the oil flows or is pumped to the surface. The rest is trapped in the cavities of the porous rock. By going down to the oil-bearing stratum it is possible to tap it in a large number of places, and thus greatly cut down the distance necessary for the oil to flow through the sandstone before it finds an outlet.

Mr. Ranney's oil-mining system contemplates cutting tunnels not in the oil rock itself, but in the hard stone either above or below it, usually below. From these tunnels small holes would be bored into the oil stratum at close intervals. Through these holes pipe nipples would be inserted, and then connected to pipe lines leading to the shaft, where the oil would be allowed to collect in a tank or pool, to be pumped to the surface. The flow of the oil into the collecting pipe system could be hastened by the use of compressed air or other means.

A prominent government official has suggested that naval oil reserves could be converted virtually into underground storage tanks by rigging them with such a collection system and then leaving the field unexploited until necessity should arise to bring out the oil quickly for use in an emergency.
