

Millions in Zinc Deposits of Northern Arkansas

IT HAS long been a favorite prophecy among miners that the zinc market could easily be cornered, because there is no such thing as scrap metal to interfere with the complete control of the mining output. But this dream must now be dispelled, for the discovery of millions of dollars worth of the metal in Arkansas will render a corner impossible. It would not even be possible to buy up the mines and form a combination, because nearly all the mines are on government land, of which any one person may buy but 320 acres. While hundreds of prospective settlers are agreeing under the government rule to settle in the prairie states on the Indian reservation, there are thousands and thousands of acres owned by the government in the zinc district of Arkansas which may be obtained by any citizen free under the homestead law, or which may be purchased outright for \$1.25 an acre. The land is all underlaid with zinc, and there is a fortune in it for the settler, if he has patience to wait awhile, for the very richest district is not on the railroad. It is truly a remarkable condition. Several railroads are racing into the district which heretofore has been a much despised region, and the day that the first one gets its feeders into the mines thousands of people who can hardly grub a living off their land now will become wealthy. And yet all the government land is not taken up, although the rush into the district is tremendous.

I have mined for gold and silver in Mexico and Colorado, but I never saw such a peculiar boom condition. The people travel everywhere on horseback and by wagon. You can travel over a radius of 500 miles in a buggy, and in that whole area millions of dollars worth of zinc would lie under the horses' feet, of absolutely no use to the world as yet because of the lack of railroads to transport it. Of course the same might be said of the Alaskan coal beds, but here the condition exists only a few miles from the center of population of the United States. It is only a question of a short time when the railroads will go into the district, but just now the most feasible mode of travel is by stage or by flatboat down the river.

Every one in the region is dealing in futures. Every one is waiting, waiting, waiting for the wealth to come. The cocksure confidence of the religious convert is not more full of the promise of the rewards of the future than are these people of their coming prosperity. You can not buy ore from them now, even at the small margin of sure profit obtained by hauling the mineral in carts to the railroad terminus 100 miles away. "Why," they say, "the ore will be worth dollars where it is now worth pennies when the railroad gets through. The interest will warrant a few years' waiting."

Near Jasper, Marion county, 1,000 tons of ore lie piled on the ground waiting for the future market. It is at least 60 per cent ore, and the mine from which it came seems to be inexhaustible. The thousand tons were blown right off the surface of

the ground. On the Buffalo river there is a shaft which had been sunk sixty-seven feet through zinc and the ore seemed to be getting better in grade the further down they went. The bottom of that shaft had water in it, and from what the writer could learn the owner had intentionally placed it there for the purpose of concealing his bonanza from the gaze of objectionable neighbors and claim-jumpers. Near Dodd City is another shaft 125 feet deep, ninety feet of which was pay ore. Between Harrison and Dodd City a Massachusetts man

riches as well, for their farm rests on the zinc bed, and when the railroad gets through (the inevitable preface to all things in that region) they expect to settle down to a life of ease and comfort somewhere in civilization. You meet instances of this kind all through the region.

Meantime the railroads are racing one another to bring the futures of these people nearer to them. The St. Louis & San Francisco railroad has already got as far as Harrison on the way to Yellville, the center of the zinc district. One of the Gould

roads will radiate like a star from the center of the zinc district.

A curious feature is the attitude of the Joplin miners towards the new district. Zinc ore is locally known as "jack," and Joplin, Mo., is the town that Jack built. Judging the new finds by their own region, the Joplin miners do not believe so much ore can exist in the direction of Yellville. They say the dip should carry it away from there. One of the men full of theory came down to Panther creek and

placers have rowed on the underground river for that distance, and they did not see the end of it. They were afraid of running out of provisions and getting lost if they went further. At Jasper there is another large cave, which has spectacular features. The columns within it, formed by the stalactites and stalagmites which have become joined, are over fifty feet high. Some of them are pure white. Others are discolored by the earthy substances which drip from the limestone roof of the cave. This is called the Diamond cave, because of the way in which the crystals scintillate when light is thrown on them.

In one of the great chambers of the Diamond cave the columns gave forth a musical note when struck sharply with a stick. The old guide who charged \$2 for taking me through struck several of these columns. Each was of a different pitch, and if a musician could jump around quickly enough from column to column he might manage to play a tune. The place gives one the impression of a great pipe organ underground.

But the native has no time for these natural wonders, which in a more accessible region would soon become world famous. His talk is all of jack-steel jack, ruby jack, resin jack, salmon jack, pebble jack and all the other jacks, and the fact that though the yield of the Joplin field last year was worth \$10,000,000, yet if only those mines in the Arkansas field already opened are worked there are already \$7,000,000 worth of ore waiting for railroad transportation. Curiously enough, the discovery of zinc ore in this region was made in Arkansas and not in Missouri. The natives, though, were looking for silver and when they found zinc they abandoned it in disgust. Yet the mine they abandoned has turned out the richest in the district. Two farmers' girls made the discovery. Driving home the cows one evening, they picked up pieces of a shining mineral, which they called flickers. The men folks, however, thought they had found pieces of silver, and a company was formed and prospecting begun. They found a ledge where the ore showed thick and they imported two German metallurgists, who built them a smelter planned according to the old Spanish pattern. It is still standing. The smelter was filled with ore and charcoal and they held ladles to catch the molten silver when it ran out. But it did not run and all they got was the fumes of the metal passing up from the smelter, or, as one native put it, there "rized the beautiful rainbow you ever seed." That was over thirty years ago and they did not think enough of zinc then to develop the ledge. Yet the Morningstar mine, as the site is now called, contains the greatest deposit of zinc ever uncovered in the history of mining. It is really a zinc quarry. The first blast threw off hundreds of tons of 40 per cent ore and the ore face now exposed is sixty feet thick. There is really no estimating the value of the ore in sight and yet so crude are the transportation facilities that the ore now being marketed is rafted 200 miles down the river.



ONLY METHOD OF TRAVEL IN THE ZINC COUNTRY.

who had purchased eighty acres at \$2.50 an acre refused \$90,000 for his land, and stands pat for \$100,000 when the railroad gets through.

The writer was riding along a mountain road one morning and stopped at a farm gate for a drink of water. The woman who procured the water seemed to be better educated than most of the people of the neighborhood. During our conversation she said she had come from Chicago. Her husband's health had broken down and with almost their last means they had purchased a mountain farm in Arkansas. They paid only \$3 an acre. They had lived there three years. But in going there the man had found not only his lost health, but

roads is constructing a connecting link passing to the northwest near Harrison into the Joplin district. Another road will be built from Salem, Mo., to Fort Smith, passing right through the zinc belt. Still another road is being built from Harrison to Winnerva, the head of navigation on the White river, where the government is putting in locks and dams to improve the water transportation. One of the roads is boring a tunnel 1,000 feet long through the mountain near Eureka Springs. It is all mountainous country and the obstacles with which the roads have to contend make the race exciting. The mine owners watch the efforts put forth in their behalf and take all things good naturedly, knowing

explained to one of the new district owners, an old man, how impossible it was that any ore could exist in the region. All the laws of geology and metallurgy, he said, were against it. After some arguing the old miner got angry, went to his shanty and returned presently with a drill. He bored a hole, put in a charge of powder and blew out a couple of tons of zinc ore from the very spot on which the man of theory had been standing during the argument. It converted the Joplin man.

Jack is not the only good thing of which the region boasts. There are many natural curiosities around about. Near Western Grove there is a cave which extends under ground for over eight miles. Ex-



Feeding a voracious maw



The man behind the throttle

AFTER THE HARVEST COME THE THRESHERS TO NEBRASKA'S WHEAT FIELDS—Photos by a Staff Artist.

Messengers from the Polar Seas

By Evelyn Briggs Baldwin, Commander of the Baldwin-Zeigler Polar Expedition.

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It is only in recent years that Arctic explorers have attempted to keep in touch with the world after once leaving their bases of supplies until their return thereto. The old way meant not only months of isolation in the Arctic regions, but also as many months of waiting on the part of the civilized world for news of these seekers for an elusive geographic point. Nor have recent efforts to overcome this latter condition of affairs been marked by any great degree of success. The history of all the expeditions which have set forth to determine the secrets so jealously guarded by the ice sphinx of the north have shown this great lack of detail. The chronicles of events occurring in that almost unknown region lying beyond the eightieth parallel are never written until the return of the survivors of the relief expeditions. For months—sometimes years—the members of an Arctic

party are dead to all the known world. What would Americans not give to know what Peary has been doing for nearly two years past. What would Sweden not give to learn of the wanderings of Andree and the fate of himself and his two comrades?
The expedition which I have the honor to command typifies in its equipment for informing the world of our progress the true spirit of the twentieth century. In the matter of exploration we shall to a large extent take up the quest where our predecessors left off. Certainly no previous expedition to the north has ever made such complete arrangements for the transmission of news back to civilization. When Andree sailed away four years ago he took with him thirty-two pigeons and thirteen buoys. One of the pigeons returned four days afterward, bearing the last news ever heard of Andree—a brief sentence giving his location and the direction in which he was then traveling. Of the thirteen buoys

supposed to have been set adrift by him two have thus far been recovered—one off the north coast of Iceland and the other on King Charles' Land, 1,200 miles away. It should be remembered that Andree had no device for releasing his buoys, being compelled to throw them from the ear of his balloon. It is more than likely that some of them were crushed and broken by the fall upon the ice.
Profiting by Andree's experience, therefore, I decided to adopt a type of buoy somewhat similar to his—carrying the Stars and Stripes instead of the flag of Sweden—and I devised a plan of releasing each buoy without involving the risk of any injury to it. If two out of thirteen Andree buoys could be recovered, why should not a larger proportion of more carefully devised ones sent out by my party be recovered? We shall employ balloons to carry the buoys back southward, and I fully expect that the news of our progress toward the pole will

be had quickly and frequently. Not only may this news feature be accomplished, but if we reach the pole—and we have determined that nothing shall stop us—the news of this triumph may be brought back months before we shall get to civilization. Two hundred of the buoys are to be placed at stations on the east coast of Greenland to be used by any of my party who may reach these points on their return. It may be stated here that we have chosen the east coast of Greenland as our objective point after reaching the pole.
Before the end of the present summer we hope to establish our main station somewhere in the neighborhood of the eighty-first parallel on the eastern side of the British channel among the islands of Franz Josef Land. Thence we shall move northward through the ice until the America, my flagship, shall be frozen in, and from this station we shall transport sufficient supplies and equipment to establish an ad-

ditional base at the very northernmost point of Franz Josef Land. Soon after this shall have been accomplished the long Arctic night will have begun and here we shall be obliged to stay until March, 1902. Meantime, however, we shall be making observations of wind, weather, clouds and various Arctic phenomena, and records of these important scientific investigations, which we expect will be of great meteorological value, will form a part of the news to be sent back by our buoy messengers to civilization. Soon after the return of the sun we shall throw out advance stations on the sea ice to the northwest before the ice shall have acquired much movement, and our advance will begin about the first of April. With only 550 miles between our winter home and the pole and the most complete equipment possible for covering this distance, I have every hope of accom-

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