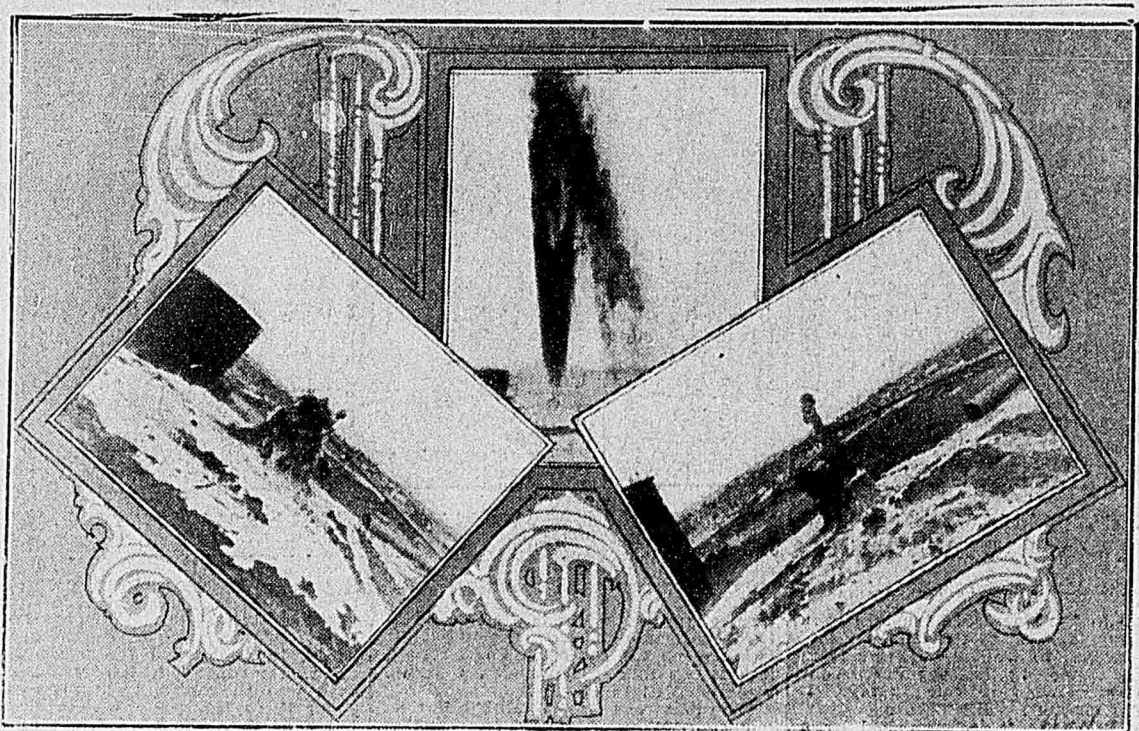


Oil Gusher in Wyoming L. D. S. Colony

Fred J. Pack, Deseret Professor of Geology, University of Utah, Tells of His Detailed Examination of the Geological Features of the District—One Well is A Veritable Petroleum Geyser Which Attains the Height of Sixty Feet.



GEYSER OF OIL STRUCK IN WYOMING.

THE Byron oil field is situated in the Big Horn basin of Wyoming, about 75 miles east of the Yellowstone national park and 25 miles from the Montana line. The field lies within the area drained by the Shoshone river, which is a west tributary of the Big Horn river. The country is reached by a branch of the Burlington railroad, the nearest station of which is seven miles from the producing wells.

About eight years ago the country was settled by a company of Mormon colonists under the direction of the late Apostle Owen Woodruff and Elder Byron Sessions, who has since become president of the Big Horn stake. In its primeval condition this part of Wyoming is extremely arid and uninviting. Only the most sturdy and far-sighted individuals could content themselves to settle there. Today, however, the country presents a far different aspect. Several thousand acres of land along the west side of the Shoshone river are now under cultivation and producing crops scarcely excelled in the most fertile valleys of Utah. Some of the very best wheat grown this year within the entire intermountain region are reported from this area.

Early in the history of the colonization indications of the existence of petroleum were called to the attention of Apostle Woodruff. It is asserted by several who were present that he advised the people to keep control of the land, because the time would come when an mighty oil industry would spring up in that vicinity. The evidence pointing to the existence of oil consisted in the issuance of a large quantity of natural gas from a slight depression in one of the farms. This is about one mile southwest of the town of Byron.

For a number of years after the country was colonized the gas escaped practically unnoticed. Finally about three years ago it attracted the attention of some Montana financiers. Soon thereafter a small company was organized and drilling began. The first well was driven near the place from which the gas was issuing. Oil of a good grade and in considerable quantity was encountered at a depth of 600 feet. With this encouragement drilling has continued with many interruptions, up to the present time. The success has varied greatly. Not less than 10 wells have been driven, but in only three of these has oil been found. This ordinarily could scarcely be considered even fair success. The cause of the failure to find oil in so many cases is apparent in current reports. It is asserted that the Montana financiers entered the field with little or no experience in oil drilling and with practically no knowledge of the geological

structure necessary for the occurrence of oil. This is known to be true in one case in which it was stated that the striking of oil is "nothing but luck after all," and that no one can tell anything about underground structure from an examination of surface exposures. This of course is erroneous. Dr. Fred J. Pack of the department of geology at the University of Utah spent the greater part of his recess of the present year in making a detailed examination of the geological features of the district. He returns with a most encouraging report stating that the field is several miles in extent, that large quantities of oil are undoubtedly present, that the oil is of the very first quality, and that the conditions for obtaining and handling the oil are remarkably good.

A detailed geological map of the district has been made, which shows the size of the field and the depth at various points to which drilling will likely be necessary. Many of the wells of Pennsylvania and other parts of the east are from 2,000 to 3,000 feet in depth while those at Byron do not in any case exceed 600 feet. An additional encouraging feature is the almost total absence of water, which makes drilling much less expensive and the condition of the oil much more satisfactory. Drilling itself becomes a simple matter because of the ease with which the operation can be carried on in the soft shale of the district.

That oil is abundantly present is well attested by the accompanying photographs. One of three producing wells "gushes" in very much the manner of geysers. The period between two successive eruptions is practically 24 hours. During the time of quiescence the well flows probably not more than one barrel every hour. Just before the eruption large quantities of escaping gas cause the oil to bubble violently and to overflow in considerable quantities. The column of oil ejected from the pipe slowly increases in length until a height of fully 60 feet is attained. It remains at this height for three to six minutes and then gradually falls back and swage causes the cause of the eruption appears to be in the expansive force of the confined gases.

The accompanying photographs which were taken by Dr. Pack show one of the wells in process of eruption. Number 1 was taken just as the well began to spout. Numbers 2 and 3 were taken successively and about 40 seconds apart. The oil is being thrown from a pipe 12 inches in diameter and fully 60 feet into the air. All that is seen is pure petroleum; no water whatever is present. During one of these eruptions not less than 200 to 250 barrels of oil are ejected. Since the photographs were taken fittings have been placed on the pipe and the well closed down. A

recent measurement of the well shows that it is capable of producing 250 barrels every 24 hours. This of course marks the well as a wonderful producer.

Besides being present in large quantities the oil is of first quality. The extensive use of gasoline in recent years has made the lighter grades of petroleum very desirable. The oil at Byron contains almost unheard-of quantities of the lighter oils. Several analyses made in the department of geology at the state university show the presence of 35 per cent of gasoline and benzine, 45 per cent of illuminating oils, and about 20 per cent of lubricating oils and residuum. The very best oils of Pennsylvania and Indiana have seldom yielded results so startling.

With conditions such as these the future success of the field appears to be well assured. Operations for extensive development in the immediate future are now well under way. Railroad facilities are near at hand and the market is good.

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Wood Pulp and Saw Mill Waste.

TO insure a pulp wood supply to meet adequately the future needs of the country seems one of the most important of the many forest problems of the United States. Statistics collected by government experts, however, show that there are possibilities in the field of invention for the relief of the drain on the country's remaining pulp wood forests by devising means of utilizing saw-mill waste.

It is estimated that there are four and a half million cords of slabs destroyed in refuse burners of the lumber mills of the country each year. The wood used for pulp last year amounted to approximately 4,000,000 cords, about a quarter of which had to be imported. The mill-waste estimate is based on a recent canvass of some of the larger mills of the country by the United States forest service, which established the interesting fact that mills having an aggregate cut of 5,440 million board feet had a final waste of 1,870,000 cords of slabs after the best had been used for lath. Assuming these mills to be representative, it is seen that there is still considerable waste in forest products at the mill even after the earnest efforts of lumbermen during the last ten years to bring about a closer utilization of the waste tree.

These figures make it look as if

American inventors, who are performing wonderful feats in other fields, should get down to the consideration of methods to make these waste slabs available for the pulp makers. Work along this line would also be likely to show the way for utilization of thousands of tons of sawdust which are now wasted each year.

It is true that some utilization is being made of mill waste at present, but in most cases it is only the larger and more modern plants that are even making any attempt in this line. Then, as it is, the plants which use the waste slabs, after laths are made, often waste the sawdust, and those which use the sawdust waste the slabs. The slabs, as it is, the plants which use the waste slabs, after laths are made, often waste the sawdust, and those which use the sawdust waste the slabs. The slabs, as it is, the plants which use the waste slabs, after laths are made, often waste the sawdust, and those which use the sawdust waste the slabs.

The iron furnace slag heaps have been seized upon by the brick maker, and the screening dump of the coal mines has become a valuable source of raw material for the briquette manufacturer. Experts say that it may prove possible to make just as good use of the waste heaps of the lumber mills if slabs and sawdust can be converted into pulp.

Quaint Features of Life.

THAT a horse has the instincts of impending danger was demonstrated the other afternoon, when an animal belonging to M. D. Swisher, road overseer, at Cripple Creek, Colo., refused to act on the bit, ran up the mountainside and saved its rider from death in a cloudburst.

Swisher was riding along Box canyon, a narrow gulch, when the horse turned from the road and, paying no attention to the rider, ran up the mountainside and stopped on a ledge 20 feet above. Swisher was mystified until he saw water about eight feet deep rushing down the canyon tearing up bushes and upending everything movable. The water was from a cloudburst about half a mile further up the gulch and the horse had heard the noise of the rushing water before the rider.

Half a mile of the Box canyon road leading to Florissant was washed out and bridges carried away. Swisher remained on the mountainside for an hour before he considered it safe to re-enter the canyon.

BABY IN THE DESK.

While her mother was searching everywhere about the house for her, relatives the Philadelphia Press, Alice Thorman, 3 years old, daughter of Mr. and Mrs. William Thorman of 1931 Smick street, Manayunk, was fast asleep inside a closed roll top desk.

Alice has an older sister, Cora, aged 5. While the children were playing Alice managed to climb into the desk while the roll top was open, and soon fell fast asleep. In a spirit of playfulness Cora then closed the desk, the lock snapped

and the little jailer went off into another room and also went fast asleep.

But if the situation had no worries for Cora and Alice it did for Mrs. Thorman, after neither child answered her call. She soon found the older girl asleep in her bed. A search all over the house for Alice being unsuccessful, Mrs. Thorman awakened Cora, but for some reason of childish perversity Cora had forgotten all about the desk incident of her earlier play.

And not a trace of the missing child did the agonized mother find until Mr. Thorman himself came home for supper and had occasion to open his desk. There, peacefully sleeping, none the worse for her cramped quarters, Alice was found. Sufficient air had circulated through the desk top to keep the child alive.

BULL ROUTS BALL TEAM.

The Jacksonville Pioneers and the Clinton Athletics, in whose uniform red predominates, went to William Haupt's field, Jacksonville, N. J., to play a game of ball.

"You shall not play ball in my field," said Mr. Haupt.

Players and spectators laughed at the farmer and the game started. Haupt walked silently to his barn and let loose his bull. The animal, followed and charged a red-jegged athlete. Players and spectators fled in all directions, the bull charging now this way, now that.

Devlin of the Giants never ran the bases faster than did the fellows the bull chased. All got away except Michael Bohan, the Athletics' catcher. The bull tossed him over the fence. He escaped with scratches, bruises and a badly ripped uniform.

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\$30 price includes choicest high class importations. A suit at this price is a decided bargain—for the tailoring is of the highest degree of excellence; perfect fit and finest workmanship.

\$35 price represents the swellest novelties and highest grade fabrics money can buy. You may pay \$25 more to other first-class tailors but I defy any one to show better workmanship, better style, or a more graceful fit. It is the par excellence of tailoring.

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