DESERET EVENING NEWS SATURDAY NOVEMBER 7 1908

The Gold Mines of the Rand.

THEY PRODUCE TEN MILLION DOL-LARS A MONTH AND HAVE BIL-LIONS IN SIGHT.

Special Correspondent

South Africa. They are not like any mineral region of North or South America, and I doubt if they have their WOHANNESBURG .- Take out your watch, hold it to your car and counterpart on the face of the globe. The country is half deserted and there are no indications of minerals. The gold is found in several great reefs of listen to the ticks. For every one of them four dollars' worth are no molections of minerais. The gold is found in several great reefs of rock which runs through a range of low hills for a distance of about 120 miles. The land is a mile or more above the sca, and these hills run from 100 to 300 feet higher. The reefs begin at the surface and extend down at a regular slope for no one knows how deep into the earth. They are great sandwiches of goldbearing rock, streak-ed here and there with a conglomerate or pudding containing quartz pebbles. The pebbles may be called the raisins in the pudding. They range in size from the egg of a swallow up to that of a goose, but they contain no gold. The gold is in the dough of the pudding, or the cement which holds these quartz and other rocks together. Money is often called dough in our slang, but the dough of the Transvaal is the Simon-pure thing and is really sprinkled with gold. ON THE GREAT REEF. of yellow gold is now coming out of the great mines under my feet. That is the measure of the stream, and it goes on second after second, minute ofter minute, hour after hour, day and night, all the year through. The steady cutput of the gold mines of the Rand is now four dollars per second, \$240 per minute, more than \$14,000 per hour and over \$300,000 per day. In 1907 the product was more than \$130,000,000, or more than \$11,000,000 worth of the yellow metal every month.

THE TRANSVAAL'S GOLDEN FLOOD.

In all history there has been no such golden flood as that which is now pouring forth from Transvaal. The

ON THE GREAT REEF.

I can describe this better by taking

you with me on a trip over the reef and going down into one of the mines. We might start at Johannesburg and go

It is only one of these mines that

mines of India, of Croesus and of Solomon were as nothing beside it. The treasures of Mexico and Poru in the treasures of Mexico and Feru in the times of Cortez and Pizarro dwindled in comparison, and Australia, Alaska and California have had nothing like might start at Johannesburg and go east and west for 60 old miles and see nothing but mines all the way. We get the train at Park station and are soon flying by the great works with their mountains of tallings. We can see the black smokestacks cutting the sky at the front and behind us, and we could throw a stone into the great hills of daziling white sand which have been left near the mine after extract-ing the gold. On each of those hills cars are crawling up and down, some of them are attached to steel cables, which bring the refuse for several miles and automatically dump it on the top of the hill, crawling on without stopunto this. The mines of the Rand are now producting more than one-fourth of all the new gold in the world. They were discovered only a little more than twenty years ago, and they have al-ready turned out more than \$1,000,000,-000 worth of bullion. This is equal to one-twelfth of all the gold from all the mines of all the world since Columbus discovered America. In weight it is just about 2,000 tons, or so much that if you loaded it on two-horse wagons at a ton to the wagon it would take a line of teams 12 or 15 miles long to carry it all. The mines of the Rand are unto this. carry it all.

line of teams 12 or 15 miles long to carry it all. More than this, these mines promise to continue pouring out gold for gen-erations to come. They could produce twice as much today if they had the labor and they could treble that amount and keep the mines going for years The gold reefs, in which the precious metal lies, have been proved for a length of more than 60 miles, and ex-perts say that they can be worked to a depth of 6000 feet. If they were worked to 4,000, the amount so far tak-en out would be just about three per cent of the whole, and at that rate there are from 10,000,000,000 to 15,000,-00,000 of the precious bullion left. The production has been increasing by leavs and bounds ever since gold was discovered here. In 1884 the out-put was about \$50,000, and ten years later it had jumped to \$38,000,000 per an-num. It steadily increased to about \$60,000,000, which was the annual pro-duct at the beginning for a year or so but in 1904 it was again \$80,000,000. amounts are inconceivable, but they are about what the mines are producing today. The aggregate dividends last year were \$25,000,000, and the mines which paid them are capitalized at over \$120,000,000. I have before me a newspaper which gives the products of a dozen of the leading mining compa-nies during the past month. None of them has paid less than \$7,500 for every day of that month and some have run day of that most man show for every as high as \$15,000 per day for the 30 days. Talk about gold! Where will you find it elsewhere as here?

THE GOLDEN DOUGH OF THE RAND.

37 cents on every ton handled. It has the best mining machinery and it works between five and six thousand I almost despair of describing these caves of Aladdin on the highlands of men day and night, Sunday and week day, all the year through. It has more

The Transvaal Golden Flood Which May Drown the World-The Ore a Plum Pudding with the Gold in the Dough-Underground in the Biggest South African Mine-How the Rock Looks-Enormous Mills with Hundreds of Stamps-A Look at Gold Bricks Worth a Million of Dollars.

19.5

THE CHINESE, BARE TO THE WAIST, SING AS THEY WORK.

Photographed for the "News" by Frank G. Carpenter.

than four thousand Chinese, a thousand black natives and the hundreds of whites who act as skilled laborers and as overseers and managers.

A GOLD SANDWICH.

which bring the refuse for several miles and automatically dump it on the top-ping until they are back at the works ready to be loaded again. The cars look like enormous ants or bugs. They are going on the dead run over the white sand, which shines out under the rays of the African sun. As we go the train stops every few moments, and at every stop is a mine. Think of a range of sand hills, the material of which is as fine as that you use for scouring your floors. Let it rise right out of the green hills and extend on for 40 odd miles, and you have some idea of these enormous piles of refuse which have come from the reef. Remember, as you look at it, that every grain of that sand was once part of a rock containing gold, and that hundreds of millions of dollars' worth of gold has come from it. If you continue your ride you will find a fence or fron smokestack along the whole 40 miles, and you will never be outside the din of the stamps which are crushing the rocks to get out the gold. IN A BIG SOUTH AFRICAN MINE. The Simmer and Jack begins at the surface and its gold-bearing rock runs down at an angle of 43 degrees to no one know how deep. The gold is in a great sandwich or rock more than a mile wide and on the slant four-flifths of a mile long. Already tens of thou-sands of tons of the gold-bearing con-glomerate have been taken out, and sixty thousands tons are now being raised every month. The sandwich starts in a great plain. It leans, as I have said, at a broad angle, and one can look down between the walls out of which it has been cut, and by hang-ing onto rones can slide down inside IN A BIG SOUTH AFRICAN MINE. ing onto ropes can slide down inside them for hundreds of feet.

It is only one of these mines that we shall visit today. It is the "Sim-mer and Jack," within an half hour's ride by train from Johanesburg, cov-ering an enormous territory sprinkled with gold. This mine has produced more than five million dollars' worth of and during the most year and it The manager of the underground workings in the Simmer and Jack is an American. He is a California enof gold during the past year, and it yielded about five hundred thousand dollars' worth of gold last month. It is a great gold factory, devoted to taking the rock out of the earth and an American. He is a cantorna en-gineer named Seagraves, who has been in Africa for some years. Upon my telling him that I wanted to go into the mine he said there were 60 miles of tunnels and underground passages, and I therefore asked him to show me as much as he could in one day Refore reducing it to bullion. The ore con-tains only \$7.50 worth of gold to the ton, and the profit is not more than as much as he could in one day. Before descending we put on miners' cloth-ing. We then entered a great skip or bucket which had just brought up two tons of ore. Then a signal from the engineer dropped us down into the

JUHN BULL

Imagine a mighty cave just high enough for a man to stand upright within it and running down at an angle of 40 degrees for hundreds of feet, mak. ing a flat, slanting hall covering acres ing a flat, slanting hall covering acres. There are rock walls above and rock floors below and away down the slant hundreds of feet distant are scores of yellow Chinese pounding the drills to make holes for the blasting. These Chi-nese are bare to the waist and they sing as they work. Each has a candle, and the light from this gives him a weird appearance as he slaves away down

A LOOK AT THE ORE.

darkness and another signal stopped us at a tunnel 900 feet from the sur-face. Here we left the skip and white quartz embedded in a cement walked through tunnel after tunnel cut out of the sandwich, now and then stopping to look down the incline. which is impregnated with iron and

which is impregnated with iron and gold. The gold is in crystals and flakes so small as to be invisible to the eye. I could see no yellow metal what-ever, and the rock looked more like limestone than anything else. The min-ers disregard the pebbles, for they have been crushed again and again and found to contain no gold whatsoever. The gold-bearing strata lies upon granite. It is supposed to have been deposited by means of water in sand and clay, which in time has turned to coment, and which by volcanic forces

dollars' worth of gold it was producing

visitors are required to give a piedge before they enter the mine that no ac-tion will be taken against the company in case they are injured during the journey. The mines are not timbered, as the rock is solid, but nevertheless the blasting frequently cracks the walls and masses fall down into the tunnels upon those who pass through. There are also cars whizzing along, the ore rolls down the planes and rocks weigh. ing tons fly this way and that. to London." With that he took me into the back room of his tin-roofed assay office, and by the twist of his wrist unlocked a yault in the wall. He then touched an

But let us go to the surface and walk through this mighty gold factory. The mines of the Transvaal have ma-chinery equal to the finest used in America, and the Simmer and Jack has 200 stamps, which work away day and night, crushing the ore for the mercury plates and exanide vais. As the rock comes to the surface it is in lumps of all sizes from that of my first to a balf bushel measure or larger.

fist to a half bushel measure or larger. It is of a bluish color, and it looks much like the limestone we use for fix-ing the turn pikes. There is not a glint ing the turn pikes. There is not a glint of gold to be seen anywhere, and when crushed the rock looks just like the dust on the roads. The rock is first sorted by machinery, that the larger pieces may be broken before they go into the crushers. They are then ground up after the same fashion that our grandmothers ground coffee, save that these crushing mills will chew to pieces rocks the size of a peck measure. pleces rocks the size of a peck measure When the ore is comparatively fine it is dropped down into the stamps and is dropped down into the stamps and pounded by them to dust. These stamps are great bars of steel, which are al-ways dropping upon the gold-bearing rock. There are 320 of them, and as they fall they make a noise like that of Victoria Falls or the rushing of Ni-agara. The din is so great that the workmen have to stop their ears with cotton to keep from losing their hear-ing. Indeed, I found myself putting my hands to the sides of my head to shut out the sound.

When the rock comes from the stamps it is a fine flour of gold ore. It must be fine enough to go through a wire mesh with holes not much larger when mesh with noises not much larger than the point of a facedle. It is now carried by water over tables covered with mercury, which catches the gold and allows the sand to go on. After this the refuse is treated to a bath of cyanide of potassium and water, which takes up such gold as is left. The processes are about the same as those

WITH THE ASSAYERS.

THE REAL THING.

processes are about the same as those used in our great mines of the west, and as a result practically all of the gold is saved.

Algebra

MEREDITH & GUTHRIE CO.

Announcement of Winter Semester Courses at Provo School. First year or A and B classes will begin Monday, November 9th in the following courses:

Shorthand Wood Work Blacksmithing Agriculture Horticulture Animal Husbandry Veterinary Science Domestic Science **Domestic Art**

multiplying, one can tell just how much gold there is to the ton. In this as-say office lead is added to the ore, and from each sample comes a button of lead about as big as the end of your thumb. In this lead is the gold. The button is roasted in bone ash, during which process the lead disappears and the gold only is seen. The speck of gold is often not bigger than the point of a fine needle, but the weighing ma-chines are so fine that the assayers can easily tell just how much the stuff runs to the tone cation in two successive winter semes ters. Young men and women not far enough advanced for the High School, that is, young people who did not com-plete the 6th, 7th and 8th grades, will

preparatory school. The classes for the missionaries also begins on the above named data.

PICTURE AND FRAMES.

appearance as he slaves, away down there in the darkness. The Chinese are paid at the rate of 1 cent for each inch of hole drilled, and an ordinary man drills 50 inches or more in a day. They

mile of sea water, and if this is so it would only take three cubic miles of the ocean to equal the present mighty yearly output of the Rand.

I have been in many gold mines, but in none where the democrature greater-than in these great slanting caves of South Africa. The walls so dip that you have to take a rope or chain to hold on to, as you move through the stopes and a slip would send you rolling down over the rocks for hundreds of feet. The accidents are so many that Before leaving I mentioned to the as-sayer that I had spent a whole day in the Simmer and Jack, and had been told again and again of the millions of

BIG MILLS OF THE TRANSVAAL.

steamers to Southampton. The ship-ments are made every Monday in order that the trains may reach the Cape for the ship sailing Wednesday. Each brick is put up in a separate wooden box, which is bound around with strap iron and sealed. The banks do the ship-ping and the rallways are responsible for the sold from bere to Cape Tour

op certain Mondays of the month that shipments amount to \$4,000,000, includ-ing about 25 of these big golden bricks." FRANK G. CARPENTER.

A PECULAR WRENCH A PECULAR WRENCH of the foot or ankle may produce a very serious sprain. A sprain is more painful than a break. In all sprains, cuts, burns and scalds Ballard's Snow Luniment is the best thing to use, Re-lieves the pain instantly, reduces swell-ing, is a perfect antiseptic and heals rapidly. Price 25c, 50c and \$1.00. Sold by Z. C. M. I. Drug Dept., 112 and 114 South Main St. B

BRIGHAM YOUNG UNIVERSITY

WITH THE ASSAYERS. I was much interested in going through the assay offlees of this great mine. The ore has to be tested again and again to know just how the mine is working and to be sure that nothing is lost. Something like a thousand differ-ent assays are made every day. A very little bit of ore is taken each time, but the gold and sliver is all gotten out of it, and then, by measuring and multiplying, one can tell just how much gold there is to the ton. In this as-

vauit in the wall. He then toucked a vauit in the wall. He then toucked an electric button, swung a combination lock around five times, and threw open a safe, out of which he pulled a great brick of pure gold. He dropped it on the counter and asked me to lift it. I tried to do so, but failed, although I might have succeeded had the brick been lying on the floor instead of at the height of my waist. It was a solid tump of bright yellow metal shaped like a paving brick and perhaps two inches thicker. He put it on the scales, and showed me that it welghed over 70 pounds. He safe that its value was \$180,000. In the same yauit I was shown other bricks which ran up to more than

other bricks which ran up to more than

\$1,000,000. During my conversalton with the as-

sayer I asked him how the gold was sent to London. He replied: "It all goes on the cars from here to Cape Town and thence by the mail steamers to Southampton. The ship-

Theology English Typewriting Physical Geography Drawing Penmanship

Bookkeeping Commercial Arithmetic Those students who are needed at home because of Fall or Spring work may yet get in one year of higher edu-

have classes organized for them in our

(Signed) G. H. BRIMHALL, President,

Midgley-Bodel Co. 33. E, 1st. So

3rd South.

nd tires-largest stock in the

drills 50 inches or more in a day. They are gouging out the holes for the dyna-mite candles. At certain hours the charges are put in and several scores of blasts are set off at once. After this the ore, which has been blown out, is shoveled down into the cars in the tunnels below. It is then carried to the shaft, up which it flies in great iron skips and on to the stamps which crush the gold out. THE DANGERS OF MINING. As I went through the mine Mr. Sea-

graves showed me the gold-bearing pudding. It lies here and there in streaks or streams in the rock, now



The boy who said that pins saved the lives of many people who did not

has been forced up into the slanting ridge which now forms the southern watershed of this continent. Indeed, it may be that the gold was once in the water just as gold is now said to be in the waters of the ocean. Some sci-entists assert that there is about \$40,-000,000,000 worth of gold in every cubic mile of sea water and if this is conit



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1816

NEEUN'T BOAST.	dication of the attitude of mind of the individual voter. If he refuses to sign the form it is taken as an indication	swallow them told only a portion of the truth about a necessary and very ubiquitous article. We don't think much about pins except when we	We carry the leading makes of bicycles and tires-largest stock in State.
(Continued from page so.	"Gropped" for refusal to sign. During election at Whitby, in 1905 a labor-	can't find one, and then the situation often gives rise to painful emotion and sometimes improper language.	REPAIRING PERFECTLY EXECUTED AND GUARANTEED
ment. There is no law which can pun- ish a merely "prospective" candidate	er on a large farm was "fired" because he came to dinner wearing a tie of the "wrong" color. The discharge of men	What becomes of the pins is a prob- lem-that has been discussed for ages, but a new impetus is given to it by	Perinterna international and an
for spending as much money as he likes in a neighborhood. The conse-	three or four weeks after an election- usually for some trifling cause-is one	figures are apt to be uninterest-	CHAVE CAPPEDIA
quence is that the intending candidate often lays out as much as \$25,000 or more in "salting" a district before an-	of the most ordinary events in political "shake-ups" in England. ANOTHER SCHEME.	ing, but it certainly is worthy of remark that this countey manufact- ures and imports something like 20,-	SHAY'S CAFETERIA
nouncing himself as a candidate. His opponent may try to drive him into a declaration which may be taken as an	W. J. Fisher, Liberal ex-candidate for Canterbury, recently called attention to	000,000,000 of pins a year, with a large number of districts not yet re- ported. On a liberal calculation this	25 E. 3rd South.
a prosecution under the act but as a	a form of voteforcing employed in that city two years ago. In a letter publish. ed in the Independent Review he says:	gives each individual about 225 pins per-year or well nigh one per day.	Come and See What You Eat.
rule, politicians on both sides are too wily to be trapped, especially if their election agent-or ward "boss"is a	"Under the pretense of saving their men time and trouble it is frequently	On this basis the amount does not, seem exaggerated, since pins are elusive to a degree and are used for	Home cooked food, guick ser-
good man. The most ordinary way of trapping an opponent into a declara- tion is to have it announced publicly.	made an excuse by large firms to con- vey their work people to the poll with every circumstance of display on be-	many purposes. The amazing thing is that in five years we have about, trebled the output. In other words,	vice. Kitchen open to inspection.
intend to stand for election." This ruse.	half of a particular candidate-clearly a form of intimidation. I have myself witnessed the spectacle of work people	even allowing for the increase in population, we use almost three times	LUNCH, 11-2. DINNER. 5-7:30.
SOME PRELIMINARIES.	being driven to the poll by their em- ployers in vans and cars decorated	as many pines as we did five years ago. What has caused this notable increase?	
When a prospective candidate has spent as bluch money as he thinks nec- essary he announces his candidacy and	with the party colors and the portrait of the candidate favored, by the firm." "MORAL SUASION."	It is well known that the masculine sex deals little in pins and the infants use the safety variety, which is not	
begins to "run" in the usual way. Aft- er making the announcement of course the utmost care is taken not to exceed	Landowners and their agents often serve their tenants with ejection notices	included in our statistics. This means that the average woman is	\$
utmost care is taken not to exceed the	if they ascertain that the latter are voting the "wrong" way. As most of the great landowners in England be-	getting away with pins at a rate which is amazing and borders on the extravagant," for she used to get	W.S. HENDERSON
limit, his friends are at liberty to form any number of fake "leagues" and to continue lavishing bounties on the dis-	long to the Conservative party this form of "moral suasion" is indulged in more frequently by Tories than by Lib-	along with a very moderate number. Of course, the modern fashions have something to do with the increase.	THE SET THE TELESON
trict. In many cases even where the election expenses are exceeded it is pos- sible to "cook" the accounts by having	erals, though both parties freely resort to the tactics of "ground-baiting" and	Women do not button their garments in these days. They use hooks and eyes and pins galore and they do	
a number of people working for you as "volunteer sub-agents" In the case	other dodges already mentioned. In order to raise the funds required for carrying on a general election both	not manage to save many of the latter. The point is that in	Wholesale Grocer
of the constituency of Thanet, for in- stance, the member had numerous per- sons working for him as "clerks" who	parties promise "honors" of various kinds to generous contributors to party funds, and the sale of knighthoods and	every family over 1,100 pins on the average disappear annualy. One would think that in a few years every home	
simply \$35 for "twenty days' election work," and yet, after the victory cach	other titles is notoriously a part of this system. Though the present Lib- eral government when it first went into	would become a brass mine, but it is certain that pins are seldom discover- ed when lost-and, what is more,	Special Attention Given to Mail Order Business Cor. Second South and Third West Streets
"present," one getting a purse contain	power made a strenuous attack on the house of lords, it recently has come to	in these unregenerate days no one stops to pick them up. Alas for the old copy-book maxims, also for the	Quick Delivery Salt Lake City
ing £70, or \$350. The purse was not given, however, until long after the polling and when the corrupt practises	light that the Liberals created more peers—that is, conferred honorary titles in exchange for contributions to party	classic story of the boy who picked up a pin, was hired as office boy.	**************************************
"present" in this case did not come from the successful member who had	fundsthan did the previous govern- ment of Conservatives or Tories. To obtain a knighthood in England the	and married his employer's daughter: Such things have gone to the limbo of discredited rules of conduct, where	
won his seat in parliament, but from a local "lengue" of his friends, over whose generous action he could not of course	simplest way is by way of a heavy con- tribution to party funds. It is esti-	they have much good company. The pin is becoming an institution and is growing rapidly. It constitutes	
workers acting as a candidate's sub	mated that one may obtain a title any- where from \$20,000 "up." AGITATION COMING.	the most numerous article which ap- pears in the roll of manufactures, and	
agents there is no way of checking the money these men might spend. In the Thanet case, though about \$15,000 was	H. C. Lea, M. P., has called the at-	the pins seem to fade away. Like the flowerets of the field, their usefulness is soon past, and business grows as	Sanonifier Inc
spent, the actual accounts only showed the legal sum of \$6,250 for legitimate "election expenditure."	eral times to this "scandalous barter of honors" in England; and before long there will be a big agitation against this man of the statement o	carelessness increases. If Poor Rich- ard were alive he might fill a complete almanac with sage observations upon	Saponifier Lye
PUTTING ON THE SCREWS. At election times in England consid-	Even though this agitation should be raised however, it does not follow that	this subject, but no one would read it or heed it, even if in an idle moment they so far forget recklessness as to	
erable direct influence is brought to bear on voters through the channel of "patronage." Many customers of	this form of corruption will cease. The giving of "pounds for peerages" is now recognized as one of the easiest ways	absorh pholosophic dissertations up- on domestic economyPhiladelphia, Inquirer.	The Kind Your Grand- mother Always Used.
withdraw their orders if the tradeout	which, in consequence, has lost product	A BROKEN BACK.	the second s
do not vote in the "right" manner-that is, according to the ideas of the partic- ular customer. If a tradesman comes	all its old-time exclusiveness. All things considered, it is about time for England to cease boasting of its immendate additional and the second seco	That pain in your back caused by lumbage, stiff muscles or a strain	Pennsylvania Saponifier is the original and old re-
the handbills or literature of an oppos-	pared to American elections the Eng-	tism, lumbago, sore and stiff muscles,	liable concentrated Lye for family soap making and
withdraw their trade. As a conse- quence you seldom find a shopkeeper with an opinion which he is willing to	it might be well for John Bull to cast an "inward eye" upon his own doings before holding up to obloquy the mis- deeds of his solution.	Scalids and all aches and pains. You need a bottle in your house, Sold by Z. Ci Mi I: Drug Dept., 112 and 114	general household uses. Has many imitations but no
pecially if his views incline toward rad-	deeds of his political Brother Jonathan. W. B. NORTHROP.	Bouth Main Ct. B	equal. The genuine has Pennsylvania Salt Mfg.
icalism. Not only are shopkeepers brought under this stricture, but large factories,	Newhouse and Boston Buildings. Partitions now being placed. Parties	13,500 Men. Women and Children." who were hungry in Salt Lake City last winter can now procure plenty of fresh and salt meet poultry of fresh	Co., Phila., stamped on the ltd.
ploying numbers of men usually man-	placed to suit their dave partitions	for reasonable prices at Blinn's New-	Ask your grocer for it. Take no other.
their employes to vote a certain way when the time comes. Foremen usually	ce ved by B. B. Hall, agent. Both	Address, 120 West 1st So, phone 168	the province of the second
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