Demand for Copper Is Increasing Rapidly.

ALL BIG PRODUCERS OLD MINES

With Hardly an Exception, There Have Been No New Properties Added to Great Mine List.

So many persons are interested in the question whether copper is likely to main-tain something like its present level of attention to certain factors which are apparently little known to most of those who discuss the matter, says R. Gervase Elwas, M. Institute, E. E., in the London Pinancial News. There is a common opinion that the extension of copper mining operations, encouraged by present high prices, will soon cause the supply to exceed the demand, and to bring down the value of the metal to something like the average of the last decade, may about £50 per ton. A casual observer, noting the score or more of new copper mining com-panies floated in London during the last year or so, might well draw such an inference. But let us examine certain fig-ures which have been brought together in a valuable pamphlet, "A Century of Copper," by Messis. Nicol Brown and C. Corbett Turnbull, compared with certain facts, little known but of great importance, which have been collected from othsources. The following table is rearranged, with additions, from Mesura. Brown and Turnbull's figures:

may continue to extend their output for a time, others must be expected before very may continue to extend their output for a time, others must be expected before very long to decrease their returns, or even to cease working altogether. This feature of the copper mining industry is emphasized by a survey of the actual mines returning an output sufficient to appreciably affect the world's total. The mines producing more than 3000 tons of copper annually throughout the world are very few in number. out the world are very few in number. So far as I am aware, the following list includes them all.

Country	NAME.	Grade of ore	Output for
N.S. A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.	Ansconda Calumet & Hecla Rio Tinto Boston & Mont United Verda Mansheld Copper Queen Tharsis Mountain Copper Tamarack Boleo (Mexico) Arisona Copper Quincy Parrot Mount Lyell Osceola Con Wallaroo & Moonta (1887) Cape Copper Detroit Mason & Barry Butte & Boston	4.26 3.50 2.51 2.80 2.80 2.80 2.60 7.40 1.60 6.04 1.56 3.50 1.07	47,899 42,000 22,703 27,630 18,809 15,000 10,700 10,000 10,000 10,000 5,500 5,500 5,000 4,053 5,000 3,125
131	Total, 21 mines	3773	297,771

Note-N. A., North America; S., Spain Brown and Turnbull's figures:

The first column is price per ton. The nin; A. Australia; C. C., Cape Colony, ther columns are given in tons.

It is obvious that the closing of a

		DECADE.	Average price rough copper	World's produc- tion of each decade	Increase of pro- duction over pre- vious decade	Average annual production for each decade	age annual production
1800 1831 1831 1831 1831 1851 1851 1871 1881	to to to to to to	1830	£160 150 101 94 83 111 87 79 00 49	91,000 96,000 136,000 218,400 381,000 565,929 900,000 1,189,400 2,225,900 2,737,500	5,000 39,000 83,460 72,000 214,909 594,001 289,400 1,026,500 521,600	9,160 9,600 13,540 21,840 29,100 50,600 90,000 118,940 221,550 342,185	500 2,900 8,340 7,250 21,500 38,400 28,540 102,650 120,508
_	Gra	nd total world's product		8,380,199			

507. 400,000 26,900 Kingdom, which since 1890 has produced 508. 508,000 tons of copper, now yields only about 500 tons per almum.

was 375,487 tone, against an average proa long time been rather more than the ction, total stocks in sight having iminished from 127,800 tens on December 1. 1888, to 50,804 tens on October 31, 1899. The average yearly increase of consumption has therefore been rather more than that of production. About two-thirds of the copper now consumed goes into elec-trical insulations, which are likely to increase rather than diminish, as new applications of electric energy are continually cropping up. The deduction to be drawn, so far, is that the annual increase of consumption is for the next few years likely to be more than it has been recently, and may not improbably reach 20,000 to 35,000

Now let us ask from what sources did we obtain the 455,000 tone of copper which formed the output of 1808, and how far are these sources to be relled upon for keeping up the existing supply, and for providing an annual increase of possibly 1,000 to 25,000 tons? The chief sources are

	Output I
Chile	tons.
Germany	20.00
Spain and Portugal United States	[5] B1
All other countries ; than 20,000 tons encl	producing less

Among the other countries, Argentina, Austria-Hungary, Bollvia and Venezuela have decreased their production since 1894. The output of the Spanish and Portuguese mines has been stationary during that period. Of the total increase in the annual output between 1894 and 1898, viz., 109,565 tons, no less than 77,721 tons is due to the United States, the rest being made up of amall increases scattered over many countries. Let us trace the source of the increase in the United States; about 90 per try comes from the three states of Mon-

State-Montana		Tons. 1888, 96,870 69,870 69,480	Tens. Increase 15,13 18,74 29,60
Section 2	-	1	100000

the Mountain copper mines in California, practically the whole of the increase of the United States in these years has been derived from the above states, and the narkable point about it is that almost the whole of this increase is from mines already existing in 1882. In Montana, no new mines of any importance came into bearing in this period; in Michigan only only one, the United Globe, which produced 2847 tons in 1886. The increased production in the rest of the world during this period is also mainly due to mines aircady existing in 1893. In fact, for some years past

only three copper mines of important out-put have come into bearing so far as I am sware, vis., the Mountain copper mines of California, producing about 11,000 tons; the Mount Lyell mines, producing about \$200 tons, and the United Globe, under 2000 tons annually. It is evident that the old mines cannot go on forcing their output to the extent they have done in the last decade, and as they are necessarily exhausting their reserves at a great rate, we must look to new sources, not merely to provide for the annual increase of conuption, but to replace old mines as they fall out of the ranks.

This exhaustion of reserve is hastened, per, but by the fact that the grade of ore worked by many of the principal mines has fallen off greatly, so that to produce the same quantity of copper from 10 to 100 per cent more ore must be raised. 1 have given some tables bringing out this point in the Mining World of March 11, 1899, to which I would refer for details, but as illustrations it may be mentioned that the yield of the following ores has

Michigan mines-Atlantic, from 0.95 to 5.65 per cent; Quincy, from 2.88 to 1.56 per cent; Tamarack, from 5.6 to 1.5 per cent; Calumet & Hecla, from 4.66 to 2.50 per Montana mines-Anaconda, from 9 to 4.3

per cent; Butte & Boston, from 8.47 to 4.65 per cent.

The total production of the world for few of these mines, some of which are last five years (from "The believed to be within measureable dis tance of exhaustion, and which between World's Increase over them produce more than two-thirds of the world's output, would materially affect the wor

Sweden, which is believed to have production for the decade ended 1890 of 221,599 duced 1,200,000 tons of copper from the tons, an increase in the annual average of 152,597 tons. The average annual increase for such of the last four years has been 27,381 tons. The consumption has for a veraged about 46,000 tons per annum, now yields about 46,000 tons per annum, now yields about 46,000 tons per annum, now yield about 30,000 tons only. Veraguals averaged about 46,000 tons per annum, now yield about 30,000 tons only. Venezuela has ceased to produce. In Australia the Burra Burra mines, formerly large producers, have ceased to yield. It will be noticed that most of the large mines are working on low-grade one, and it may be taken as a general rule in copper mining at the present day that large bodies of low-grade are much more profitable in the long run than small lodes of rich ore. These latter are usually pockety and un certain; moreover, the rich assays are commonly obtained from oxidized, or sec-ondary ores, concentrated by chemical action from the decomposition of sulphides of much lower grade, into which the ore changes in depth. Copper is the metal whose ores are most easily found from their strong coloring properties; hence, most of the easily speessible deposits of rich oxides and carbanates have been die covered and worked out during the past century, or in some cases by the ancients. New discoveries of this character may no doubt be looked for in countries yet unprospected; but they are seldom large enough in any one case to materially swell the total production. On the other hand, to bring into full bearing the large low-grade deposits of sulphides requires much capital and a long time.

We are now in a position to form some opinion as to the probability of the flood of new copper companies so materially increasing the world's supply under the impetus of present prices as to overpass the demand and bring prices down to the level of the last decade. We find that, whereas, the total world's production of the century from 1801 to 1898 was 8,280,000 tons, we shall at the present rate of con-sumption—say 450,000 tons per annum— without any increase at all, require an equal quantity in the next 20 years, and that if the consumption increases at the rate at which it has increased for the last few years—say 25,000 tons per annum—we shall require the same quantity in about 14 years, and the congumption in 1914 will have reached 800,000 tons per annum. try comes from the three states. The pro-tana, Michigan and Arizona. The pro-duction of these states in 1894 and 1895 duction of these states in 1894 and 1895 off or exhaustion of others (a very doubtful assumption in view of the condition of the chief producers), we shall require to mest the probable increase of consumption, new mines to be brought into bearing to the extent of, say 25,000 tons each year. Total ........152,780 216,220 63,470 It has already been shown that in the With the exception of 11,000 tons from last five years, but three mines of importance—Mountain copper mines in California. and United Globe, producing between them under 20,000 tons per annum-bave come into bearing. Past experience has not shows that high prices have led to any sudden increase of discoveries. From 1800 to 1850 the lowest average price for any decade was £88; but the bighest in-crease of the average annual production for any decade was only 8340 tons. During the Cecretan boom in 1888-89, when copper rose to over £100, the world was ransacked for copper ore, but with no very striking results, except, perhaps, in Arizona. The facts seem to be the other way about, discoveries have affected prices, rather than prices discoveries. The low prices of the periods 1881 to 1890 and 1891 to 1888 seemed to have been caused mainly by the discoveries in Montana and Arizona, together with the increased development of the Michigan mines, coming on the top of the large output of the reorganized Spanish mines. It was only the concurrent great increase of consump-tion, due mainly to the introduction of electric enterprises, that prevented the comparatively sudden influx of copper into the market during this period, causing a The demand, however, of the glist: whole, kept pace with the supply during these years. It is not within the bounds of probability that such a coincidence should again occur as the discovery or rediscovery and development almost simultaneously of the great producers in Spain and the three American states.

If we take 20 years as the average life of a copper mine (and experience shows that this is over, rather than under, the mark), we must be prepared in the next few years to find each year new supplies to the extent of 5 per cent on 450,000 tons. equal to 22,500 tons, to replace exhausted or decreasing mines, in addition to the new supplies required to meet the increase of consumption. The latter, we have already seen, has for five years been about 25,000 tons, but if we take it at 22,500 tons, we must find each year new supplies, equal to 45,000 tons per annum. Some portion of this will no doubt be Some portion of this will no doubt be forthcoming from the extended production Part of this falling-off in yield is no could due to the fact that improvements mining and metallurgy have enabled reached their maximum; but, considering

ores to be treated that formerly would how long most of the producers have been not pay; but the fact remains that to at work and the extent to which their produce a ton of copper a much greater mans of ore has to be stoped than in former times. Some of the American mines of increase from this source can be mainhave now reached great depths—2000 feet tained. If we put it at 15,000 tons per to 5000 feet—and can not be extended much annum there is left a quantity of 30,000 further down. For the above reasons it tons (and possibly a good deal more) to seems probable that, while existing mines be added each year from entirely new may continue to extend their output for a mines. In other words, upon the above

> 5500 tons, and one about 3000 tons. It must be a poor mine that will not turn out copper at £40 per ton, so that copper at £60 should yield a profit of £20 per ton, - and an output of 1000 tons will, at these rates, pay 10 per cent on a capital of £200,000; 30,000 tons per annum of new supply, therefore, justifies an investment of £6,000,000 per annum in new copper mines. If we look over the list of new copper mining companies floated in the last two years, and examine their proswe find that the great majority of them have neither capital nor pros-pects adequate to the output of more than 1000 to 20000 tons of copper per annum. Past experience and an analysis of the statements put forward justify a rough classification into those which have no real mines, those which have mines, but are likely to fall through insufficient capmay arrive at the producing stage. Per-haps one-third of the whole may achieve success; but it is evident that if ten or a dozen of these companies, two or three years hence, succeed in turning out 1000 or 1500 tons apiece, this will not go far, to fill up a gap increasing at the rate of 20,000 tons a year. Two or three of the new companies, it is true, contemplate a production of several thousand tons per annum: but, apart from the question of survival, an absolute fulfillment of their nopes, which must require several years, would still leave the increased consump-The flood of new companies in the

United States seems to have been greater even than in London; but from the particulars which have come over, most of these appear to be of the merest "wild-cat" order, and by their inevitable failure are likely to discourage the exploitation of genuine concerns. Fluctuations of price must, of course, be expected, not only from the normal variations between supply and demand at particular moments, but from manipulation by astute oper-ators. The American combination is scarcely to be satisfied without further control of producing mines, and to obtain this control cheaply may suddenly put down the price of copper for a time, until it has been able to secure the mining stocks it desires. But, looking to the prevalent tendency of things as a whole, the survey of the copper business which we have made points to the continuance for some years to come of prices on the average as high as will just not check consumption or invite substitutes for cop-per, say £00 to £75 per ton. If the American combine is not too greedy for profit, and is content to maintain prices within such limits, it may do good service by steadying markets and controlling the violent fluctuations which the shortness of stocks might otherwise lead us to exor stocks might otherwise lead us to ex-pect. The holders of good copper mining shares ought to have a prosperous time before them, and new en'erprises, if moderately capitalized, well furnished with working capital, and under good pects of success.

### JOHN MARSHALL DAY.

Preparation for a National Celebra. tion in Honor of the Chief Justice.

NEW ORLEANS, Feb. 4.-The follow ng address of the American Bur Assolation of the Bench and Bar of the United States, regarding the observance of John

Marshall day was issued today:
"By direction of the American Bar Asociation, a committee composed of one and from the District of Columbia, has been appointed by the association in ref-erence to the proposed celebration of John Marshall day, to take place on Monday, February 4, 1901, being the first centennial of the installation of that eminent jurist as chief justice of the United States. A splendid career of Marshall in the great office which he adorned for more than 3t years, cannot fall to be an occasion of prefound interest and importance to the American bench and bar, Soldier, stuent, advocate, diplomatist, statesman and jurist—he was one of the finest types of American manhood in its best estates. His fame is the heritage of the nation, and it is befitting that the whole country should celebrate the appointed day.

"In the language of Judge Story, when colding the sentiments of the great court on the official announcement of Marshall's death, 'his genius, his learning and his virtues have conferred an imperishable glory on his country, whose liberites he fought to secure, and whose institutions he labored to perpetuate. He was a pa-triot and a statesman of spotless integrity and consummate wisdom. The science of jurisprudence will forever acknowledge him as one of its greatest benefactors. The constitution of the United States owes as much to him as to any single mind for the foundations on which it rests, and the expositions by which it is to be maintained; but, above all, he was the ornament of human nature itself, in the beautiful Illustrations which his life constantpresented of its most attractive graces

and most elevated attributes." "The committee has been charged with the duty of publishing this address to the legal profession of the United States; also with the further duty of preparing sug-gestions for the observance of the day on

the duly of requesting the good offices of the president of the United States in recommending to congress the propriety of observing John Marshall day on the part of congress and other departments of the government of the United States, and of memorializing congress to observe befitting ceremonies in honor of the great chief justice. It is proposed that com-memoration services be held at the na-Uonal capital under the direction of the supreme court of the United States, with the aid and support of the co-ordinate branches of the government.

"It is also expected that the day will be properly observed on the part of all state and national courts, by the cessation of judicial business, and that all state, city and county bar associations participate in proper exercises in such manner as to them shall seem most appropriate.

Similar ceremonies are recommended to be held in all American colleges, law schools and public schools, to the end that the youth of our country may be made more fully acquainted with Mar-shall's noble life and distinguished serv-

The American Bar Association leaves the execution of this national celebration in the hands of the courts, and the public bodies named, and the committee exressas the sincere hope that the celebraon be national in its character and imosing in its extent and fervor, and that t may have the hearty support of the secular and legal press of our country The active co-operation of the respective vice-presidents and members of local unclisappointed by the association, with the respective members of the national committee, is respectfully requested and expected. On behalf and by authority of the national committee

"WILLIAM WIRT HOWE."

# IS INTENSELY PRO-BOER

One Who Thinks That Civilization Will Be Advanced By Defeat of the British Armies.

SALEM, Feb. 6 .- (To the Editor.)-I read the communication of your correspondent of the 26th, signing himself "J. Creagh." It was so utterly devoid of the spirit of liberty which our free institutions implant in the soul of man, years prior to his coming to this country. I deny that the Irish farmers are ready to fight for England, or any portion of the people of Ireland, except a small minority of the people of the north of Ireland, who have been specially fav-ored as English colonists, and who were planted there for the purpose of exterm-

misery and suffering of the Irigh. He has been landlord and land-agent according to his statement. He upholds the absentee landlordism of Ireland, which the higher state of civilization in England world, outside of England, has contain the world has ever witnessed. The demned. Of all the despicable creatures that walk the earth there has been none more infamous than the land-agent, who has been fastened on the Irish people to collect rack rents for absentee landlords. As if to settle the question at agus, any line in Alaska, and her hope of common your correspondent calls me a "apalpeen." I am American born, and a citizen of this great country. While your correspondent was acting as landlord-agent and realized in the Anglo-Boer war. England spondent was acting as landlord-agent and collecting the lest dollar that could be gathered for the absentee landlord, who spent it abroad, I was born in this country under the broad folds of the Stars and Stripes, the symbol of the free, and the hope of all oppressed peoples. During the period he speaks of so boastingly, I attended the schools in Salem, studied the latter of mailors will be forced by three the schools of the weak and the bluffer of nations will be forced by the starter of my country therein and who have hoped and prayed for this time to come, when the oppressor of the weak and the bluffer of nations will be forced. history of my country therein, and with what pride I read of the stand made by our people at Concord and Lexington, and the defeat of the British at Bunker H.l..

How I was delighted to read of the surrender of Burgoyne to the embattled former of Burgoyne to the embattled PORTLAND, Feb. 1.—(To the Follow).

farmers at Saratoga; the crossing of the Delaware by Washington and his fight at Trenton; the surrender of Cornwal is at Yorktown and the acchievement of our independence. How my blood belied with indignation at the burning of the capitol at Washington by the English in 1812, and how pleased was I at the great victory of Jackson at New Orleans, and the second triumph of American valor and intelligence over the English on this Western continent. The blood of the G'Nells of the the north of Ireland, and of the men who fought for liberty at Outlant Hill, Enniscorthy and Vinegar Hill In old historic Wexford, was thrilled with the grandeur of the struggle of the onics, and the bravery shown by A cans in the colonial and war of 1812. I look back with pleasure to my younger days when I hoped the day would comwhen the wrongs of Ireland would be

Your correspondent is but Irish, if a all, by the accident of birth. He is not in touch with the people of Ireland. A man cannot be considered an Irishman, any more than he can be considered an Amerirations and hopes of the people of the country. Is your correspondent proud of the early history of Ireland when she sent scholars into every known land at that time from her institutions of learning. Is he proud of "Malachi, who wore the collar of gold which he won from the proud invader?" Is he proud of the libertious Sarsfield? Does he rejoice at the victory of the Irish in the service of France over England at Fontenov? he proud of the struggle of the United Ireland Party, which was formed in the north of Ireland, which he claims to hall from? Does he take an interest in the struggle of the Protestants of the north of Ireland against England's commercial aggrandizement? Does he recognise as a prother Irishman the gifted John Mitchell who belonged to the north of Ireland and was the son of the Unitar an min ster who sacrificed social and financial stand ing that the Irish people's wrongs might be redressed? Does he rejoice over the shot that was fired at Concord and Lex-ington, which was heard around the world. and which is reverbrating yet and has been heard by the Boers in South Africa? If he does not, he is no Irishman in any sense of the word, but is one of the Eng-lish colonists who were planted in Irlish colon-iz who were planted in ira-land to stamp c't the Irish spirit and dea-troy the thought of liberty implanted in the heart of every true Irishman. In spirit and character he is Cromwellian in every respect. I look in vain through his communication for one word condemning England in her treatment of Ireland. Not an apology for the villainous penal laws; not a word against the destruction of Ireand's industries and the vicious system of

absentee landlordism. I visited Ireland some years ago, and have a personal knowledge that there is great distress there and always will be until absentee landlordism is crushed out. The landlords own the best land in Ireland, which was conficated by the Eug-lish government and given to adventurers from England. The thought which impresses one in visiting Ireland is: How much has nature done for her, and how little has men assisted nature. I when in Ireland, men, women and child-ren on rack-rented sterile land, which was hardly fit to raise anything, carrying gestions for the observance of the unit of the part of state, city and county bar associations, and other public bodies in not have shoes to protect their feet from the state of the state the stony crags over which they were compelled to pass.

The same spirit is exhibited all through

his communication which I called atten-tion to in my letter of the 12th of January: the claim set up by England and her colonists that she planted in Ireland, that the Irish are an inferior race of people and have been treated too well. I con-demn England as much for this spirit as anything else. Through her press and her literature, the Irish people have been de-nounced as incapable of self-government and an inferior race, while the knows that Ireland's sons have ar'een to distinction in every land. These base calumniators of the Irish race have tried o have the world place an estimate he Irish people that the true state of

facts will not warrant. Is your correspondent familiar enough with American history to know that the close friend of Grant and Sherman, and the idol of the Union army in the civil war in this country, the greatest war in history, was Phil Sheridan, the son of a rack-rented tenant who was obliged to cave Ireland because he could not live under the infamous system of landlordism? Does he know that with the opportunities afforded him here in this land, the best of all lands, which would be denied him in Ireland, where he would be denounced us a "spalpeen," he rose to distinction and developed a military genius which has commanded the admiration of all true ien, and shed additional luster on his ace? Your correspondent, the land ord. agent, etc., takes no special pride in the great military qualities of the Irish pearant's son. He belongs to the class who have tried to destroy our good name and force the world to believe we are an inferior race. As the foolish builders relected the chief corner stone of the temple, so your correspondent, and his ilk. have endeavored to destory a race that are unconquered and unconquerable; who

will not stoop to tyranny. "ADOLPH MOSES, Sec'y." It is particularly gratifying to the Irish

copie, and every American who has a frop of Irish blood in his veins, to learn of the defeat of Buller a second time by he Boers. He was sent to Ireland, in re ent years, to throttle and stamp out con HATRED OF ENGLAND FOR WRONGS stitutional agitation. With his standing army, including militia and police, of 10,000 men, he stifled the free speech of the

39,000 men, he stifled the free speech of the Irish people, and undertook or put to independent thinking, which could not be done. All hall to the Boers, they have nobly done their work.

Your correspondent places the Boers and the Irish on the same plane; they are both accused of killing women and children and in need of civilization. The Boers need no defense at my hands. Their cause need no defense at my hands. need no defense at my hands. Their cause is so sucred, it needs no defenders. What onstitutes the highest state of civilization? The Boers are brave, they will fight, they are kind and humane in their treatment of prisoners. What more docas to be particularly noticeable on that account. According to his own statement, he never heard of the unjust treatment of Ireland by England although he was a resident of Ireland for over 10 fining influences of English c vilization as ompared with the Boers' treatmen he English prisoners who have fallen into their hunds.

The Boers left Cape Colony first, then Natal to get rid of English domination, and they propose to "trek" no more. They propose to defend their homes, and the world (outside of England, and England planted there for the purpose of exterminating every Irish idea.

The character of your correspondent is best stated by himself when he says "he has lived in Ireland for over 20 years in the capacity of landlord, land-agent, and receiver in the courts of bank-ruptcy and chancery." He is one of the cursed brood who have fattened off the land representation of the land re arrogance and conce't of England that has cowed the world (except America)

PORTLAND, Feb. 7 .- (To the Editor.)-Every little while for years past some ne has rushed into print claiming that one has rushed into print claiming that the name of the town six miles south of this city was spelled wrong—that it should be spelled "Milwau-kee," instead of "kie." The founder of the town was Lot Whitcomb, a pioneer of 1847. He named it "Milwaukie." The Western Star, a paper started there by Lot Whitcomb, November 22, 1856, so spelled it in its head lines and throughout its columns. The postal department of that onte recognized the same form of spelling it never was spelled otherwise focally It never was spelled otherwise locally until the advent of the Oregon & Call-fornia railroad, about 1872. The undersigned with his own hands printed the first timecard of that road. In the copy formished by the passenger agent the sta-tion was spelled "Milwaukee" but it was changed to "kie" in the proof, on the ground that that was the custom of the ountry; whereat the aforesaid agent be-ame vexed and changed it back to "kee," eaying that "there was but one way to speil the word, and that was with n kee," and that Oregonians did not know how to spell." Furthermore, it was claimed that it was named after Milwaukee. Wis. Whether that is so or not is not known; but in any event it would not signify necessarily. Proper names are purely arbitrary, and may be spelled in any way the owner has a mind. In early days the Wisconsin city was spelled with a "kle," and that was the custom even as late as 1850, as may be seen by reference to the maps of that date, particularly "Mitchell's New Universal Man of World," Whitcomb may have grated from Wisconsin to Oregon; if he did, he had good reason for spelling the name of the town he founded as he did. So let it remain for all time to come. GEORGE H. HIMES.

BUSINESS TREMS.

If Emby Is Cutting Teeth. The sure and use that old and well-tried remedy Mrs. Winslow's Southing Syrup, for children sething. It southes the child, softens the nume, illays all pain, cures wind colo and diarrhoes.

Disease lurks in China-made cigarettes smoke Zarina. They are pure.



growth of hair comes from lack of hair food. The AIR hair has no life. It is starved. It keeps

Slow

coming out, gets thinner and thinner, bald spots appear, then actual baldness.

The only good hair ? food you can buy is feeds

the roots, stops starvation, and the hair grows thick and long. It cures dandruff also. Keep a bottle of it on your dressing table.

It always restores color to faded or gray hair. Mind, we say "always."

\$1.00 a bottle. All druggists. "I have found your Hair Vigor to be the best remedy I have ever tried for the hair. My hair was falling out very bad, so I thought I would try a notife of it. I had used only one bottle, and my hair stopped falling out, and it is now real thick and long."

XANCY J. MOUNTGASTLE,

July 25, 1878. Yonkers, N. Y.

To the Doctor. He h and you his book on The Hair an Stalp. Ask him any cussion you wish allout your hair. You will receive a prompt answer free. Address, DR J. C. AVER. Lewell, Mass. The Automaton chess player is a won-derful thing. It plays a perfect game inside. its limitations. But once outside the routine moves, the Automaton is a failure. Much of

Automaton at chess No medical man can move with success outside his experience and train-For that rea, in the local doctor, often gives up as hopeless a case which is quite curable when greater skill and experience are brought to bear.

It is the so-called "incurable" and "hopeless" cases, which come in such numbers to Dr. R. V. Pierce, of Buffulo, N. Y., for treatment. Men and women with weak lungs, obstinate coughs, emaciated bodies and fevered cheeks have found in Dr. Pierce's Golden Medical Discovery the true elixir of life. "The blood is the life" and the "Discovery by increasing the activity of the blood making glands, and restoring to healthy action the digestive and nutritive organs, places the entire system in a condition to throw off disease. There is no alcohol, opium, or other narcotic, in "Golden Medical Discovery,"

Medical Discovery."

Mr. Chas Hunwick of Leace Macomb Co., Mich, writes: "I have never felt better in my life than I do now. I have taken Dr. Pierce's Golden Medical Discovery right along. I think I am doing finely. I do not cough now and I can sleep like a school boy. I think I will have to change my mind about "Paten Medicines," as I never had much faith in them, but you must know that I have been treated in two hospitals and by three doctors besides and received no benefit; so I think you's medicine is the only medicine for me."

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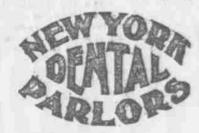
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