

THE TORONTO WORLD

No. 4100, ST. JAMES-STREET, TORONTO.
A ONE CENT WEEKLY PAPER.

Subscription prices: In Advance, by the year, \$5.00; by the month, 50c. Single Copies, 1c. (By Mail, by the year, \$5.50; by the month, 55c.) (By Mail, by the year, \$6.00; by the month, 60c.) (By Mail, by the year, \$6.50; by the month, 65c.)

HAMILTON OFFICE:
No. 5 Arcade, James-street north.

WHOLESALE NEWSDEALERS:
F. W. Beebe, 231 Madison-avenue,
George Messer, 707 Yonge-street,
Mrs. Moriarty, 1425 Queen-west.

A LAST APPEAL

The letter of "Citizen" in another column ought to act as an alarm summoning the thinking men of this city to the duty that lies before them. The so-called Citizens' Association started out to purify the City Hall and to elevate the moral and business capacity of our representatives. But the association has accomplished absolutely nothing. Unless a sudden change is made on the lines suggested by "Citizen" we are doomed to have next year the same commonplace council that has mismanaged and squandered our affairs for several years back. To be sure the words are full of citizens who are anxious and ready to step in and fill up the breach. So many such are there, in fact, that a choice of any kind would be a great advantage to work to make up a slate. But no matter what selection might be made the slate would contain a council not above the average in capacity of any we have had in recent years. In spite of the promises of the association it looks as if we are destined to have again the same old mediocre council. Our representatives will be men who like to hear themselves talk, who imagine being a chamber where men air their opinions, who are not interested in the welfare of the city, who are not men who do not make a profession of talking, but who bring into play good judgment in the decision of the matters brought before them.

What we especially should aim at in reforming the council is to get rid of the itch for talking, and substitute an ability to transact business. Instead of a chamber where men air their opinions, the council should be like a board of directors who talk over matters in a businesslike way, and decide every question that comes before them on its merits as a matter of business, and without any reference whatever to the effect that their actions may have either upon the listeners in the audience or upon the citizens at large.

For several years back there has been a movement to get a business man's council, but so far no success has been achieved in that direction. It is an opportunity presented itself for electing such a council, that opportunity is with us to-day. We venture to say that four-fifths of the citizens would approve of a council composed of twenty-four of the men mentioned in "Citizen's" letter. The opportunity presented to-day may never occur again. If the city is ever to be blessed with a council in which the people will have confidence, action must be taken immediately. The World earnestly hopes that "Citizen's" letter will have the effect of causing our leading citizens to reflect earnestly upon the situation. We trust that the citizens mentioned in his list or that he himself will issue an invitation to every one of these gentlemen to assemble at some point-to-day or on Monday, for the purpose of selecting a sufficient number of names to form a new council. One year's government of the city by men of this stamp would have a wonderful effect in restoring that confidence which is now so sadly wanting in the administration of the affairs of the city.

WHAT WE MAY EXPECT FROM MR. BOWELL.

Mr. Bowell, more than some of his colleagues, has been a staunch and consistent upholder of the National Policy. He was on the stump for the N.P. in the campaign of '78, and before that year in the House, and was an able supporter and champion of the National Policy. The tariff reform of last session was not much to Mr. Bowell's liking, and now that he is in a more responsible place he is not likely to see any more of it. The manufacturers and workingmen will recognize in the new Premier one of the soundest protectionists in the country. Mr. Bowell last session took charge of the Immigration bill, and thought it passed the Senate, and now that he is in the House, and was an able supporter and champion of the National Policy. The tariff reform of last session was not much to Mr. Bowell's liking, and now that he is in a more responsible place he is not likely to see any more of it. The manufacturers and workingmen will recognize in the new Premier one of the soundest protectionists in the country.

CHEAP GAS COMING.

There seems to be little doubt that fuel gas can be produced at a remarkably low rate by new processes that have recently been developed. We mentioned the other day that gas was being sold in Canada, a small town in New York State, at 80 cents a thousand. We learn from The Buffalo Times that a new gas plant is to be erected in that city, and that fuel gas will be sold at a price that will drive out coal for heating and manufacturing purposes. The gas is made by what is known as the "Hall" process. It is claimed that 10 tons of bituminous coal as \$2 a ton will produce three thousand feet of gas. Everything points to the fact that a cheap gas is one of the certainties of the next year or two. If the Consumers' Gas Company were wise they would look a little into the future, and of their own accord grant relief which otherwise, they will be forced upon them before long.

GOOD CITY GOVERNMENT.

The current number of Harper's Weekly has an article on "Good City Government," which is a review of the situation in Toronto. The article recites the steps that have been taken recently to forward the cause of good city government in the large American cities. The increasing interest in this subject has been manifested in a national conference held in Philadelphia in January last, in the formation of innumerable municipal leagues throughout the country. In the United States a national municipal league will hold its first annual meeting in New York City, and in a second conference in December 8-10 in Minneapolis. The weekly is in reference to the conference.

James, of the University of Toronto, in his paper on "The City Charter," maintains

THE GIFT QUESTION

And its Happy Solution—What Citizen Are Buying For Christmas Presents. One of the chief matters which occupy the minds of citizens at the holiday season is the question of Christmas presents. "What shall I give for Christmas?" is a query that many have not yet answered to their own satisfaction. But there is a simple, a simple and sensible solution.

There is nothing like fur, and garments of that fashionable fabric, in all its many varieties, are now, as they always have been, the favorite holiday gifts. Fur has always a value of its own, and for a present that will be of permanent use, and which will be more appropriate or acceptable. It being decided that fur is the best holiday gift, the next question is, "Where shall we buy?"

TRADES AND LABOR COUNCIL.

Motion Against Giving Lady Thompson a Pension—Municipal Printing.

Mr. John Thompson's death caused a great deal of discussion at the Trades and Labor Council. Resolutions were put in by Delegate Hilton, concerning the proposed pension to be given to Lady Thompson, and against a delegation to the City Council to ask the Mayor to grant a pension to the widow of the late John Thompson. The Council, after a long discussion, decided to grant a pension to the widow of the late John Thompson. The Council, after a long discussion, decided to grant a pension to the widow of the late John Thompson.

FIGHT WITH KNIVES.

Over Monday Difficulties Italians Quarrel—One Is Badly Injured.

George Dineen and Paolo Pradolero, Italians living at 173 Centre-avenue, got into an altercation at that house last evening. Dineen, who is an expert fencer, drew out of his pocket a knife, and Pradolero, who is a native of Sicily, drew out of his pocket a knife, and the two men fought with knives. Dineen was badly injured, and Pradolero was also injured. The police were called, and the two men were taken to the hospital.

A LARGE WATKINS FIRM.

It is not generally known that Messrs. John Dewar & Sons, Distillers, Perth, Scotland, and London, Eng., send their catalogues to every citizen of this city.

Mr. Dewar & Sons, Distillers, Perth, Scotland, and London, Eng., send their catalogues to every citizen of this city. The catalogues contain a list of all the products of the firm, and are sent to every citizen of this city. The catalogues are sent to every citizen of this city, and are sent to every citizen of this city. The catalogues are sent to every citizen of this city, and are sent to every citizen of this city.

An Old Man's Fatal Ride.

Windsor, Dec. 21.—Patrick P. O'Neil died at his residence in Sandwich South, Ont., from injuries received by being thrown from a horse. Although 78 years of age, O'Neil thought he was as active as a young man, and when one could be found who cared to ride, he would take a horse and go for a ride. He was thrown from a horse, and died of his injuries.

The Subject of Feeding.

The vast majority of people are absolutely wrong on the subject of feeding. They think that rich and luxurious food, feeding on the richest and most luxurious foods, are the most nutritious and healthy foods. I assure you that is not the case. The most nutritious and healthy foods are the simplest and most common foods. The most nutritious and healthy foods are the simplest and most common foods. The most nutritious and healthy foods are the simplest and most common foods.

The Schools' Closing Day.

The city public schools closed yesterday for the Christmas holidays with the distribution of medals and certificates. The closing exercises were held in the afternoon, and were attended by a large number of parents and friends. The exercises were very successful, and the children were very happy.

Local Settings.

The exercises in celebration of the founding of McMaster Hall were held at the hall last night. The exercises were very successful, and the children were very happy. The exercises were very successful, and the children were very happy. The exercises were very successful, and the children were very happy.

A Policeman Attacked By Ruffians.

P. C. Nat Guthrie was assaulted by a crowd of ruffians at the corner of Adelaide and York-streets yesterday morning, and was severely injured. The ruffians were very violent, and Guthrie was very brave. The police were called, and the ruffians were taken to the hospital.

Try Southern Straight Cut Cigarettes, 10c per package.

Try Southern Straight Cut Cigarettes, 10c per package.

FADS OF THE ENGLISHWOMEN.

At Present One is an Enormous Chignon and the Other is a Case. "There are two fashions very largely, almost universally, affected by Englishwomen just now that I don't think will be copied over here, even by the most pronounced faddist," remarked a woman just back from a long stay in England. They are the chignon and the walking cane.

The fashionable coiffure is hideous, says the woman, and the walking cane is a thing that is not to be seen in this country. The chignon is a large, round, and is made of hair, and is worn on the head. The walking cane is a long, thin, and is made of wood, and is carried in the hand. The chignon is a thing that is not to be seen in this country, and the walking cane is a thing that is not to be seen in this country.

THE MINISTRY SWORN IN.

The Oath of Office Administered in Montreal—Dr. Montague a Very Sick Man.

Montreal, Dec. 21.—The new Dominion Cabinet was sworn in to-day. The new and old Ministers arrived last night. Dr. Montague is suffering from heart trouble, and was in charge of a medical man. Only the new men and the ones whose portfolios were changed had to be sworn in. The ceremony did not take long, though there were three distinct oaths to be taken for the entirely new Ministers, the oath of allegiance, the Privy Council oath, in which they promise to keep the secrets of state, and the Departmental oath.

RIOT AND REVOLT.

Three Uprisings in Various South American Republics.

New York, Dec. 21.—A special from Rio Grande do Sul, Brazil, says: There was a serious riot yesterday afternoon among the Government troops here, in which many were killed or wounded. Over 200 soldiers left the garrison and are now making their way towards the rebel camp, where they propose to enlist.

No One Killed.

New York, Dec. 21.—A special from Buenos Aires, Argentina, says: There was a riot yesterday afternoon among the Government troops here, in which many were killed or wounded. Over 200 soldiers left the garrison and are now making their way towards the rebel camp, where they propose to enlist.

Killed Her Babe With a Penknife.

Eastport, Maine, Dec. 21.—A woman calling herself Mrs. Alexander Howard, 32 years old, who came from the Maritime Provinces two months ago, is under arrest here, charged with killing her newborn child last Wednesday with a penknife. Her alleged husband, Howard, left for St. Andrews, N.B., three weeks ago, and his present whereabouts is unknown.

Dr. Montague Ill.

Ottawa, Dec. 21.—Dr. Montague, the member for Haldimand, who has been taken into the Cabinet without portfolio over the heads of Messrs. Wallace and Wood, is known to be sick again. When he left for Montreal his face was bloodless. He was accompanied by Dr. R. W. Powell of Montreal, who stated that his patient was suffering from nervous prostration in the stomach, being a result of the strain of the last session, and that he was suffering from a severe attack of indigestion. Dr. Montague was stricken down, viz., fatty degeneration of the heart.

West Bruce Patron of Dr. Agre.

Tiverton, Ont., Dec. 21.—The Patron of West Bruce, Dr. Agre, was taken into the Cabinet without portfolio over the heads of Messrs. Wallace and Wood, is known to be sick again. When he left for Montreal his face was bloodless. He was accompanied by Dr. R. W. Powell of Montreal, who stated that his patient was suffering from nervous prostration in the stomach, being a result of the strain of the last session, and that he was suffering from a severe attack of indigestion. Dr. Montague was stricken down, viz., fatty degeneration of the heart.

CHRISTIAN CHURCH.

What Makes Yuletide the Popular Festival—At Headquarters.

It is surely pleasant to reflect that at Christmas time, on the one great festival of the year, the care-burdened man, the weary mother, the struggling family, the poor and needy, the sick and the aged, the orphan and the widow, the stranger and the foreigner, the Jew and the Gentile, the Christian and the non-Christian, the rich and the poor, the high and the low, the noble and the ignominious, the virtuous and the vicious, the good and the bad, the wise and the foolish, the brave and the cowardly, the strong and the weak, the healthy and the sick, the young and the old, the beautiful and the ugly, the handsome and the homely, the tall and the short, the fat and the thin, the black and the white, the red and the yellow, the brown and the pink, the blue and the green, the purple and the grey, the gold and the silver, the iron and the steel, the copper and the brass, the tin and the lead, the zinc and the nickel, the cobalt and the chromium, the manganese and the selenium, the tellurium and the iodine, the bromine and the fluorine, the chlorine and the oxygen, the hydrogen and the nitrogen, the phosphorus and the sulfur, the carbon and the silicon, the boron and the aluminum, the magnesium and the calcium, the strontium and the barium, the lanthanum and the cerium, the praseodymium and the neodymium, the promethium and the samarium, the europium and the gadolinium, the terbium and the dysprosium, the holmium and the erbium, the thulium and the ytterbium, the lutetium and the hafnium, the tantalum and the niobium, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the molybdenum and the ruthenium, the rhodium and the palladium, the silver and the copper, the gold and the platinum, the iridium and the osmium, the cobalt and the nickel, the iron and the steel, the manganese and the chromium, the vanadium and the titanium, the zirconium and the hafnium, the niobium and the tantalum, the