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ПРОЕКТ

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How many up to him{it} all variety of elements which have created the surprising world around of the person and which make his{its} most essence tried to result chemists in system...

How many people have staked for the sake of it the life. Many understood, felt, that there should be such system - the law of the nature, aspired to open it{him} is and it is vain. It{he} has constructed its{her} one - periodic system of elements. System of elements of D.I.Mendeleyev.

It was the mighty person, because made him{it} under force only to the giant. How it was possible to it{him}? Due to what? Due to the of improbable force to talent, due to a fortress of spirit, due to confidence that business of it{him} is necessary.

It{He} has appeared in Petersburg silently and imperceptibly, having overcome on horses a long way from sleepy Tobolsk where it{he} was born, up to noisy, talkative Moscow and magnificent city on Neva. And how in unfamiliar big city this blue-eyed young man who is not having neither notable relationship, nor rich parents differently could appear? Father of it{him} was director of the Tobolsk grammar school - a post not the god a message what profitable, and small glass which basically and began to feed family after father, go blind, has been compelled to leave teaching, too did not bring the big income. And nevertheless, when it{he} , it was the big impact for Mendeleev. After all fourteen souls of one children...

Mitia was younger and, similar, the most favourite. In the childhood it{he} possessed not too a sound health, and in damp Petersburg air and at all to feel began itself unimportantly. Sometimes he{it} a throat had blood, and doctors believed, that at him{it} last degree of a consumption began. It{he} laid in clinic of pedagogical institute where it{he} studied, when once during detour the main doctor, thinking, that Mendeleyev has fallen asleep, has told to director: <Well this will not rise any more...> And <this>, having heard the verdict, sat on beds, has got writing-books and has there and then plunged into records with lectures.

Institute friends have managed to arrange for Mendeleyev an audience at court physician Zdekauera, and that, having heard it{him}, has delicately advised to go on the south. To tell the truth, Zdecauer has given still advice - seem simply so, just in case Piragavim.

And in Crimea at this time there was a war, and Pies, having rolled up sleeves, operated since early morning and till the late evening. For days - tens amputations. Mendeleyev many times saw it{him} from apart, but all did not dare to approach to it{him}. Pies was more necessary.

Mendeleyev also could not think, that a kind of Simferopol, city, in general, enough removed from a front line, can make on him{it} such heavy impression. Restaurants worked, no, hospitals was a little, and around of city tents with a red cross have crowded. And everywhere ...

Mendeleyev here knew nobody. Pies seem inaccessible. And the graduate of the capital institute who has arrived on consultation to find to itself put here, certainly, could not. And it{he} writes to the brother in the letter: <the South which so attracts you, this south, believe, it is good only in the north, yes two - three months in one year, and that let it pass...>

But at last Mendeleyev before Проговым. The great doctor with unexpected attentiveness examines so strange here the patient and... Grants to it{him} a life! Mendeleyev has for ever remembered that has told to it{him} of Pies: <Нате to you, , the letter of yours . Save up it{him}, yes sometime to it{him} and return. And from me bow transfer. You will go through both of us>.

The inspired Mendeleyev is born{carried} to Odessa. With it{him} only that on it{him}, yes is a little money, but all so is good, ahead has put - tempting and interesting so much, now it is necessary to hasten, because time lost in burdensome expectation, to not return any more.

To Odessa at Mendeleyev a direction. It{he} has received there a place of the teacher of natural sciences, from him{it} there the small laboratory, the first laboratory, and there and then, near at hand - excellent library.

Here, in southern seaside city, it{he} starts to search <for the reason of chemical affinity> - of what thought already for a long time and to that it{he} will devote all life.

Half-year in Odessa, and Mendeleyev again in Petersburg. It{he} has arrived not with empty hands: work which it{he} has brought - the most thin and most laborious research on specific volumes. It actually his{its} dissertation. She{it} gives it{him} the first scientific degree of the master. The master of physics and chemistry. To Mendeleyev it was executed then only twenty two years.

It was his{its} first big victory. But a victory, which pleasure has saddened to mountain: favourite sister who has arrived together with it{him} from Tobolsk has died. And now it{he} has remained in Petersburg one. Sometimes it{him} pulls home - look on native places, to meet relatives, but this dream even long decades will be dream. And only on a slope of years, already world famous scientist, coming back from expedition{dispatch}, it{he} will make a hook to see Tobolsk. It will be short returning, but full of disappointments.

And in October of the same year when it{he} became the master. Mendeleyev has struck all friends: it{he} has protected the second dissertation. Of course - a case ! Scientists have not without hesitation accepted Mendeleyev's second work though it and was the serious contribution to chemistry . But too all this was unusual...

And then young Mendeleyev on the post carriage which was rolled quickly with the four of horses, goes in the first business trip - through Warsaw - further, to the well-known Heidelberg, in laboratory of the patriarch .

Mendeleyev trusted, that the days which have been lead{which have been carried out} to laboratories of the Heidelberg university, near to the glorified chemist, to it{him} will be useful, but it{he} was mistaken. Bunzer, borrowed{occupied} with the experiences, has met the young Russian colleague politely, but it is constrained. And in laboratory where to Mendeleyev have allocated a place, there was all as it is impossible more inconsistently: in narrowness students crowded, there was no utensils, reactants. Mendeleyev has immediately understood, that here it{he} only will waste time. With a kind of the deepest regret has told Bunzeru, that it{he} is unhealthy, has thanked for so hospitable hospitality and has there and then moved down from a university apartment. And soon again in a way. This time - to Paris, to Celerony - to that Caleroni, better which nobody could do{make} chemical devices and tools. Most exact of all exact weights because others did not suit his{its} work were necessary for Mendeleyev.

It{He} has returned to Heidelberg where has removed{has taken off} tiny under laboratory and where it{he} was waited already with the concerned letter of the trustee of the Petersburg educational district - it is visible, messages on trick with have reached.

Mendeleyev has answered: <the Main subject of my employmentis physical chemistry>.

It did not hasten home - and not because did not wish to see the city, already for a long time becoming to it{him} native. It{he} did not hasten because in Heidelberg to it{him} was well worked, it{he} felt like free, independent. And consequently still, that here it{he} has found new friends.

Ivan Setchenov, Alexander Borodin, Dmitry Mendeleyev - they were then are young, their names did not sound yet so loudly, but each of them was already known for the works. All three excitedly were engaged in chemistry. Mendeleyev tried to comprehend essence of the phenomena occuring at a level considerably more thin, rather than molecular, and has opened temperature of absolute boiling. Setchenov has penetrated into chemistry of gas exchange in living tissues, and the author of <Prince Igor> with ecstasy pottered with test tubes and flasks and by then was the author of several large printed works in chemistry.

To Troy great Russian. Small <mighty >. They worked not hands, and in the evenings converged for is expected, shared everything, that has collected for a day. Hardly later, when to them has joined Methnicov, they swore, that if from them in a life it will be difficult for somebody, everyone will gather to come to the aid. They have constrained this oath.

... And in Heidelberg they had happy time. In work all was got on - and consequently the mood was fine, and they had a rest too selflessly. frequently sat down a grand piano, and that all time went in the next small town to listen to the well-known body.

Together with Borodinym Mendeleyev quite often went to mountains. That them attracted... Unless it is possible to tell about it? They liked to go upwards on difficult road, clinging for stones, sometimes in a dirty and in a snow. And without it in a life something lacked. As well Dmitry Ivanovich itself has written about it - to the girlfriend of sister Olga, the future wife. As it{him} pulled then to and as much later it{he} will be ready to give everything, everything if only to leave it{her}. As well it{he} has written to it{her}: <you will not forget this minute, will be glad ten versts to climb, once again to test the same. And why? I to you shall not tell. I shall tell because I do not want, no, itself I do not know and I can not invent...>

Friends united not only predilection for chemistry - they were in many respects similar - with identical passion were given work, and by something, with a head were immersed in new business. It was to tell the truth, shown at them differently. Mendeleyev all was given passion and did not cool down, while in it{him} the spark decayed even. It{he} did not undertake something another, was not convinced yet that here it{he} has learned{has found out} and has taken all. It{he} was sincerely pleased the affinity with as counted his{its} unusually talented person and thanked destiny that she{it} has reduced them.

And was similar to noisy, sparkling fireworks which it{he} is skilful to prepare and prepared always , with love. It{he} perfectly painted in oils and drew, is skilful to mould and engrave - not speaking that it{he} played on many tools, - was the chemist and the composer. And how to know, whether from this friendship with went then hobby for art. Probably, all the same many-sided nature - it really inevitable display of the big talent. The person, great really, probably, cannot enclose all force and all talent in one channel. A life, as if being afraid to lose invaluable particles of human talent, does not allow it{him} to make it.

And in Petersburg Mendeleyev suddenly feels sharp pleasure of returning. It{he} has understood, that all years missed this city. Now it{he} not one here: sister Olga has returned. Together with the husband decembrist Basarginym she{it} was in the long Siberian reference. Here, in its{her} house, Mendeleyev even more often meets with - she{it} is pleasant to it{him}, but it{he} badly knows women and is not confident that is necessary to follow advice{council} of the sister and to marry. It{he} wants to find out - whether they can with understand each other, but every time perplexed stops: no, it is visible, has not stuck to hasten, hurry destiny. Let all develops how is, without any efforts.

It{He} trusts, that so it will be better. Then suddenly inflow of despair - it{he} doubts of itself, in the and writes the letter. No, not the letter, and cry from the heart is born{carried} to the sister to Moscow (her{it} have carried away for the period of an affair). And that answers: <you are engaged, declared by the groom, in what position there will be she{it} if you now will refuse?> And it{he} concedes.

And in fact that is strange: it{he} was the person with strong character, is skilful to stand for itself and God forbid to someone it{him} to offend, and here suddenly it{he} has conceded. From what? It{he} knew, that has been in love only, instead of liked. And married. To it{him} it was not indifferent? Probably, no. But it{he} trusted, that if has left , for it{her} it would become valid impact. And it{he} could not reconcile to it. It{he} is not skilful to hurt anothers.

In three years at the son was born. Dmitry Ivanovich together with the friend the professor Iljinym buys from the ruined prince small , nearby to Klin, moves there and with starts to be engaged in an agriculture.

However, the hobby it was not casual: Mendeleyev for a long time missed the nature.

In it is good it{him}. It{he} walked much, exploited, strove on the skilled field, and in the evenings quite often met herd going from a pasture. It{he} very much loved all this. But business not only in it. Experiences which it{he} puts, serve one purpose. His{its} science should to people concrete advantage{benefit}. Here, in , it{he} brings up in itself(himself) other attitude{relation} to business: work of the scientist should not be outside of communication{connection} with practice. And right at the end of the life it{he} will recollect these days and will write about experiences: <they are important for me because justify all my further attitude{relation} to the industry>., it appears, when it{he} started to think of the future.

For now still it{he} walked with the son on glades, with boyish passion played on a lawn in a croquet, pottered on a current, collected just the bought thresher. Also it was visible, that here, in , it{he} feels like itself(himself), freely and happily.

So thought, looking at him{it}, his{its} wife. She{it} thought, that so will be always, that Dmitry Ivanovich has understood, at last, where and in what his{its} happiness. From one only these ideas the wave of silent pleasure overflew her{it}.

But she{it} was mistaken. In its{her} husband the great scientist at that time ripened. It{he} did not think of it. She{it} simply did not understand it.

And again Petersburg. The idea on chemical affinity of elements which has come within students, again excited it{him}. It{he} has been absolutely firmly convinced, that by all means should exist certain law - imperous, relentless which defines{determines} this affinity or distinction of the elements occupying the world.

How many up to him{it} was attempt - naive, far-fetched - find this law, obeying it{him} to place all elements on harmonous system... At that time chemists have opened and <have measured> 64 elements, knew their nuclear weights so the material for work already was. There was no only a person who would manage to penetrate into this secret laying as it seemed, somewhere nearby and nevertheless inaccessible.

French chemist Shankurtua searched for law, having arranged elements on the screw cutting put on worth cylinder. All is vain.

English chemist Njulends, the person, probably, the refined nature, tensely searched for a solution with the help of music. It{he} trusted, that those parities{ratio} which exist between elements, are similar to parities{ratio} between musical tone and his{its} octave. construct the system, it is artificial pushing in it{her} elements, them under those sizes which itself and has prepared. The system was, but the system of elements was not. it was necessary to go through minutes when chairman of the British congress of scientists has asked it{him}, not hiding irony: whether <dear gentleman tried to arrange elements alphabetically and whether it{he} has seen thus of any laws?>

Mendeleyev looked in the essence of the phenomena and did not try to search for any external communication{connection} uniting all elements in the base of a universe. It{he} tried to understand - that them connects and that defines{determines} their properties. Mendeleyev has arranged elements on increase of their nuclear weight and began to grope law between nuclear weight and other chemical properties of elements. It{he} tried to understand ability of elements to attach to itself(himself) atoms of relatives or to give the.

It{He} has armed with lots of cards and has written on one party{side} the name of an element, and on other - it nuclear weight and formulas of his{its} some major connections. It{he} again and again shifted these cards, stacking them on properties of elements. And in his{its} consciousness any new laws emerged, and it{he} with the familiar excitement previous to opening, cautiously moved ahead further and further. Hours it{he} sat, having declined above the table, again and again peering into records, and felt, how the head and as eyes were dimmed with a shivering veil started to be turned from a pressure{voltage}...

Speak, that in dream to it{him} there has come inspiration and that at night to it{him} as, in what order it is necessary to spread out those cards that all has lain in the places under the law of the nature. Can be. The brain of the person always is awake. But there was Mendeleyev to this enlightenment years! It{he} moved ahead intelligently, beforehand planning and expecting each next step. Can, and there was that inspiration, but it{he} cannot be named casual.

Mendeleyev has found communication{connection} even between the most unlike elements. It{he} has found out, that properties of elements if them to place in ascending order nuclear weights, through correct intervals repeat. Mendeleyev understood: accident it could not be. Then it{he} has made last - deciding step: has arranged all elements also on groups, having united in separate families of close relatives. It{he} so clearly saw harmony of the system created by him{it}, that, having noticed absence of an element between aluminium and the titan, has left to it{him} an empty seat. Such empty cells{cages} it was necessary to leave two more. Mendeleyev's system allowed it{him} to expect opening.

First of them has followed in four years. The element for which Mendeleyev has left a place and properties which nuclear weight it{he} has predicted, has suddenly appeared! Young French chemist Lekok has sent the letter in the Parisian academy of sciences. In it{him} it was spoken: <The day before yesterday, on August, 27, 1875, between two and four o'clock in the morning I have found out a new element in a mineral zinc from mine Pjerfitt in Pyrenees>. But the most amazing still was necessary.

Mendeleyev has predicted, still leaving for this element a place, that his{its} density should be 5,9. And asserted{approved}: the element open by him{it} has density 4,7. Mendeleyev, and in eyes not seeing new it and is more surprising than elements - themes, declares, that the French chemist was mistaken in calculations. But also appeared : it{he} assured, that was exact. This dispute resembled any game in which participated . This magician carried Russian name.

Hardly later after additional measurements it was found out: Mendeleyev was unconditionally right. The first element, filling an empty place in the table, has named gallium in honour of the native land of France. And to anybody then has not occurred to name it{him} of the person who has predicted existence of this element, person who has once and for all predetermined a way of development of chemistry. It was made by scientists of the twentieth century. Mendeleyev's name carries an element open by the Soviet physicists.

... And houses at him{it} all goes somehow inconsistently. To it{him} it is lonely. It{he} for a long time already knows, that it{him} never will understand. She{it} wants, that it{he} was the provisional family man and all free time from teaching carried out{spent} together with it{her} in village. And it{he} cannot. became for him{it} a stage in a life, and this stage appeared already behind.

Mendeleyev for some months leaves for America - study local methods of an oil recovery. America surprises it{him}: it{he} expected to see something absolutely other. The first city of staff - New York. It{he} has seemed to the great chemist simply ordinary-looking, reminding the big district cities of Russia. The well-known petrocrafts? But it{he} anywhere did not meet more thoughtless attitude{relation} to natural riches...

However, it{he} did not meet still much in a life, this large, hardly the man with a fair-haired beard and long hair. To it{him} for forty, but it{he} did not meet very important in a life that fills with its{her} special, quivering sense. It{he} yet did not like.

They have got acquainted in the house of his{its} senior sister. Her{it} called Anna, she{it} was a daughter of the Cossack colonel and so did not resemble all girls whom it{he} met before... She{It} was harmonous, slow, under dense black eyebrowes the big grey eyes shined, and a head decorated long, heavy . She{it} has arrived to Petersburg to act{arrive} in the Academy of arts, and has remained in this city for ever. She{it} has found here of what is not courageous to dream and in the most courageous dreams.

It{He} has fallen in love with it{her} as the boy. First it{he} at all did not understand, that to it{him} occurs: near to it{her} it{he} felt sharp attacks of loneliness. It was very similar to how the person, from thirst in desert, near to a source feels tortures more sharply. It{he} avoided her{it}, was hidden on the half of house, but should force to not think in any way itself of it{her}.

Father of her{it}, having learned{having found out}, however coldly she{it} has costed with the groom, disturbed, has gone to Petersburg here again has learned{has found out} that all knew: his{its} daughter and Mendeleyev like each other. However hopes at them any was not. divorce to allow did not agree, and father Anna ordered to demand to it{her} from Mendeleyev, that it{he} will not search with it{her} for meetings. Mendeleyev promised.

But promised . It{he} simply could not constrain the word. It{him} attracted in those places where as it{he} knew, it was possible to meet her{it}. It{he} entered into a building of the Academy of arts and waited for her{it}, being hidden for columns, disappearing in shadows of halls. It{he} also behaves as the boy.

Father Anna undertakes one more step: it{he} sends the daughter for the winter to Italy.

There was a frosty December, and Mendeleyev, looking in a window of the car, compressed a hat in hands. It was foggy, and it seemed to it{him}, that they more never will meet...

She{It} has left, and it{he} wrote to it{her} the letter behind the letter and lowered{omitted} them in a box attached to a table behind which worked. In fact it{he} promised to not remind of itself(himself)...

Then it{he} accepted time to go to Algeria - on chemical congress. His{its} friend

- Beketov, seeing hopeless despair with which Mendeleyev got ready for a trip, has not born and has rushed off to in . On what it{he} expected, knowing her{it}, it was not clear, however contrary to any reasonable logic has managed to convince her{it} to give freedom to the husband. Having secured with the consent to divorce, Beketov on wings has departed to Petersburg and has hardly - hardly found Mendeleyev before departure for quay.

The steamship has moored in Algeria, but Mendeleyev onboard was not. It{he} was in Rome. Near it{her}.

From Rome - if only to remain together, they have rushed to Africa, have come to be in Egypt, then - in Spain. And in Rome - so hastened - to anybody have not said goodbye...

But up to full happiness it is still far. The church has imposed on Mendeleyev's marriage{spoilage} - an interdiction, and it{he} seven years had no right to marry. One year later the Kronstadt priest has broken this interdiction and has married Dmitry Ivanovicha to Anna Ivanovnoj and for other day in punishment has been deprived the dignity.

Such they had love. Difficult, beautiful, painful and happy. Mendeleyev what it{he} touched in a life, was always given all - with passion, in a mighty impulse. So it{he} liked, so destroyed enemies so worked - day by day - all life.

Were at him{it} and hobby, but even they turned to the big, serious business.

Successively Mendeleyev is a lot of years was engaged in research of gases, he{it} had the most serious proceedings this theme. But it{he} reflects and about the friend: <Russia... Owns the most extensive against all other educated countries coast still a free atmosphere. Russian therefore and to seize the last... With the device accessible to all and a cosy impellent shell...> And is farther: <... To attach to a balloon hermetically sealed, , the elastic device for a premise{room} of the observer which then will be provided with compressed air and can safely do{make} for itself definitions and operate a sphere>. In fact that is surprising! About a tight gondola it{he} wrote for some tens years before , the subjugator of a stratosphere, for the first time has constructed such gondola. And the lowered device of a spacecraft on which Jury Gagarin came back to the ground? The same idea. Idea of a tight cabin...

August, seventh, 1887 Mendeleyev has achieved the sanction together with the pilot and one more researcher to rise on a sphere for supervision of a full solar eclipse. Grey rainy day was, all sky is tightened{delayed} by clouds, and a sphere filled with hydrogen, is lazy pulled cables. His{its} assistant V.E.Tishchenko has approached to Mendeleyev and has told: <Dmitry Ivanovich, at a balloon is not present elevating force. I see, I know business, to fly it is impossible, I assure you, it is impossible>.

Mendeleyev has answered, and in this answer it{he} was all - and as the scientist, and it is simple as the person: <the Balloon is too the physical device. You see, how many people watch{keep up} flight as behind scientific experience. I cannot undermine at them belief in a science>.

Together with pilot Mendeleyev through a board of a high basket and at once has understood: the sphere will not lift even two. And it{he} immediately decides to fly one. To think only: the person never earlier flying on a sphere, dares to fly alone!

In flight it{he} is cool, all does{makes} <on a science>, and having finished{stopped} all supervision, the cord going from the final valve finds out, that, has got confused and does not allow to open it{him}. Then Mendeleyev gets out of a basket, climbs up on and untangles an ill-starred cord...

Mendeleyev said goodbye to university in 1890, and it were the most depressing days in his{its} life. It{he} left not at the will - and that it was heavier this farewell. It{he} has got on a student's meeting, began to convince all , to it{him} have not listened, then it{he} has suggested students to write the requirements and has promised to inform this letter up to minister of education. The word it{he} has constrained also the student's petition has handed over minister. And that has soon returned the letter accompanied with a note in which did not remain places of an ambiguity: the one who will be in the service his{its} imperial majesty, <has no right to accept similar papers>. Minister, probably, not quite realized, to whom it{he} paid these words.

Mendeleyev did not begin to wait, while to it{him} will hint twice. It{he} has submitted to resignation. The rector of university has not accepted the application. Then Mendeleyev has simply taken and has put the paper sheet combined twice in a pocket of the rector.

It{He} has read up a rate up to the end. Last lecture has read superb though, probably, it dearly costed to it{him}. His{its} audience that day has been filled, as never: to say goodbye to it{him} there came students and others . Being afraid of excitements, in an audience have directed group of gendarmes. Having seen them in a hall, Mendeleyev was lowered{omitted} on a chair and, having put the big head on hands, has silently begun to cry...

But it is far from being the end. It{he} has not surrendered. Still worked more many. It{he} invents new, gunpowder which gets huge value for military science and which recipe on a criminal negligence of the government departures to America. Mendeleyev warned, that so can happen - and happened. And in 1914 Russian military department has bought some thousand tons of this gunpowder from the States. Americans, receiving gold from the Russia which has entered war, did not hide, that it < gunpowder>.

Then it{he} becomes the scientific keeper of Depot of exemplary measures and weights, conducts huge work on introduction of uniform metric system, personally defines{determines} weight of the standard of pound in grammes - with very big accuracy - up to the sixth sign after zero, moreover at war with bureaucrats, beating out money for reconstruction and expansion of a building. Then, it is visible, having given up as hopeless, has planned cunning: has organized visiting the Board of Weights and Measures by his{its} imperial highnes and before his{its} arrival ordered to pull out from cellars any unnecessary devices, boxes and to place all directly in corridors, on road, to create narrowness. Supervised over this work (on memoirs of his{its} employee O.Ozarovskoj) assiduously: <Under legs{foots}, under legs{foots}! To cross it was necessary! In fact will not understand, that is close, it is necessary, that stumbled, then will understand!> And in fact has excellent achieved, that wanted! Money distances!

Such it{he} was the inventor who is were fond and at the same time such constant. Has written somehow, already in an old age: <Itself I am surprised, that only I not on the scientific life>. Yes, the talent is many-sided. The genius - especially...

The genius? Having heard once as someone from his{its} pupils has made it aloud, has become angry seriously, has waved hands and has shouted it is quarrelsome: <What there the genius! The genius worked all life, and...> Is not present, all the same the genius.