THE HEARTHSTONE.

an absolute condition in the lives of most men, | fish shame and regretful affection for him. If there is no pleasanter mode of scattering it she had loved him less, she might have felt than upon such a rustic carnival as Georgie her own wrong less bitterly; but she did love Clevedon and her father had organised for the him, and she was sorry for him, and there was celebration of the barone's twenty-ninth birth- | a relenting tenderness in her mind, even in the pose there can be scarcely one bitter drop, pro-vided always that everybody within a certain to dispel by any word or act of hers. She had distance is invited; that there is no forgotten no fear that their estrangement would be a fairy to mutter her maledictions in the midst matter of very long duration. He would humof the banquet, and invoke misfortune upon the prince or princess of the house. And yet when he had done so, when he had fully rewho can tell, even in that simple world, what pented himself of this facit rebellion, she would heart-burnings may disturb the joy of Susan receive the prodigal, and propose the seat in Jones at sight of Mary Smith's new gown, what a sense of humiliation may depress Mrs. Brown on beholding Mrs Robinson in a n w bonnet, while Brown's scanty wage has not afforded his partner so much as a yard of ribbon to smarten her faded head-gear? Or who shall presume to say that the jealous pangs which gnaw the entrails of some rustic Strephon at sight of his Chloe's flirtation with Damon are not as ficree an agony as the torments of any brilliant dandy in the Household origade distracted by the infidelities of a countess?

Sir Francis Clevedon did not consider the thing so deeply as he looked out on the tents and flags and flowers and fountain's and gailydressed crowd scattered over a vast green amphitheatre under the moontide sun—a cheerful picture framed by a background of old forest rees, amidst whose cool umbrage t e scared deer had fled for sanctuary. He thought that Georgie had hit upon a very pleasant in nacr of fooling away two or targe hundred bounds. whatever Mr. Wort—with a pencil behind his car and an ancient little account-book in his hand-night say to the contrary.

"You're sure you're pleased, then, Frankie?" says Georgie, in her little coaxing way, sidling no to her husband as she stands by him on the terrace-walk before the house, looking down at the crowd. " I should be quite miserable if you didn't like it all. You see, it seems such a dreadful thing for you to marry a girl without sixpence, and for her to begin by spending your money at such a rate; but, then, it's only once n year, and it's all for your sake, so I do hope you're pleased."

"As if I could help being pleased with you in that bonnet," said Frank, surveying the bright face framed in white azaleas and bloude. Georgie is all in white to-day, an airy sylph-like costume, in which she looks scarcely seventeen. Sibyl is near her, also in white, dotted about with little bouquets of forget-me-nots, and with forget-me-nots in her bonnet; and Sibyl is very agreeably occupied in a fliration with her brother's friend, Captain Harwood of the Engineers. The Clevedon guests from outside have not yet begun to arrive; the visitors in the house circulate languidly—looking out of windows, or sauntering up and down the terrace, watching that crowd of creatures of an inferior order from afar, with a kind of mildly curious interest which one might feel about with a jelly-lish or any other invertebrate ani-

I am so glad they have a nice day, poor dear things," said Mrs. Cheviot, who was good-natured, but not of the district-visiting order, who had no personal acquaintance with these belots.

"Yes," drawled Weston, "I suppose we ought to be pleased for their sakes; but it would have been more fun to see them struggling in the rain with umbrellas. I was at York summer meeting the year that Moor-hen was expected to win, but didn't; and the rain was occasant, and I can assure you the people on the shilling stands and places were very good fun. I think we should have more amusement to-day if the weather had been bad; to see the girls dancing in pattens, for instance-a par de pattens-would have been capital.

"I suppose t at's what they mean by a pat-n fair?" said the youngest Miss Stalman; because it always rains in Ireland, you

Mrs. Harcross sat in a garden-chair near this group, and looked listlessly at the people in the park, sauntering to and fro to the music of a local brass land braying out the match from Gounod's Faust, in abominable time, with a kind of staggering sound, as if a regiment of gigantic toy-soldiers were lifting their clumsy wooden-legs to the music. There was a good deal of talk and merriment already among th rural visitors. An Aunt Sally had been set up under the trees, and the lads of the village were pelting the grim old lady's visage; but every one felt that dinner was to be the first great event of the day, and that everything before dinner was merely preliminary and unimportant. The tenants whose appetites had sharpened by a longish drive through the morning air, were rather inclined to envy the peasantry their earlier meal; but, then, there was n satisfaction in knowing that their banquet would be a joy in the present when the plebeian feast was only a memory of the past.

Very bitter were the thoughts of Augusta Harcross as she looked across that festive crowd—the tenants and retainers of her husband. She did not grudge Sir Francis Cleve-don the cheap popularity of to-day; indeed, she considered the whole business a foolish and frivolous waste of money. Not such re-nown as might be won by hogsheads of ale and roasted oxen did she desire for her husband nor would she have valued the commonplace distinction of a Lady Bountiful for herself She thought of what Hubert might have made of these advantages which Sir Francis held to so little purpose. She thought of him not wasting his powers upon the dry-as-dust argu ments of law-courts or committee-rooms, but mounting that splendid ladder of statesman whereby a man achieves that renown which must ever seem the chiefest of earthly glory to the British mind Now he spent his labour for that which profited him naught. since committee-rooms and arbitration cases, though remunerative enough in a sordid sense but with six or seven thousand a year of his own, and the status of landowner, it would have been different. Such an income, augment ed by hers, would have enabled him to hold any position.

"He shall go into parliament next session," she said to herself. "He shall win a name that men will respect. I will not let myself be crushed by this horrid secret. A barrister's fame is so common. I might be proud of him, if he were to distinguish himself in the political world; I might be proud of him, in spite of

It was a strangely blended sentiment of sel- lads as you could see anywheres. They went

In that cup of pleasure one would sup- face of that coolness between them, which she parliament and partial cossition from his legal labours. She would remind him of a fact which had been perhaps too much ignored by boththat her fortune was his fortune, and that the renown which he might achieve by a disinter-ested pursuit of fame would be dearer to her than any of those sordid successes which were only estimable by the amount of pounds shillings and pence that they brought with them.
She meant to do all this in good time. She

was not an enthusiast, who, on being inspired by a new idea, runs off flushed and cager to communicate it to the car of sympathy. made up her mind with deliberation, and allowed her purpose to incubate, as it were, in the silent calmness of her soul. She felt that she was taking a generous—nay, even noble—view of her husband's position, and that he could not full to receive her proposition with ready assent and some gratitude.

"there are women who would part from him for ever after such a discovery," she said to herself; and such a parting had indeed been her first thought, strangled in its birth by the consideration of the world's wonder. Mrs. Harcross was a person who could not permit the

world to wonder about her.

Mr. Harcross had his duties as steward and before one o'clock, he and Captain Har-wood, Weston Vallory, and Mr. N'Gall the reviewer were amongst the crowd, duly blueribboned and rose-budded. Weston found his way to Miss Bond, radiant in her pluk dress. She had contrived to slip her moorings from her father's arm; and while that seriouslyminded gentleman was arguing on the subject of justification by faith with another seriouslyminded gentleman, Jane had drifted as far away from him as she could, and was receiving the compliments of rural swains, with all the more freedom on account of the enforced absence of Mr. Flood, who was on duty in the stables at this hour, assisting in the puttingup of wagonettes and whitechapel carts. The barouches and landaus and omnibuses of the gentry were only just beginning to arrive,
Jane welcomed Mr. Vallory with a blush and

a simper. Her rural admirers were very soon made to feel themselves at a disadvantage beside this splendid London dandy, and shambled off with a sense of defeat and discomfiture to console themselves with a "shy" at Aunt Sally,
"How charming you look in that pink gown!"

common objects by the sea-shore, and with said Weston, surveying the damsel with his hardly any more sense of affinity than one has bold stare; "it's the prettiest costume Pvescen to-day "

"I'm glad you like it," the girl answered, "I bought it with your present; but of course I daredn't tell father so. He'd have turned me out of doors, I think, if he'd found out as I'd taken that sovering?

"Then you shall not run the risk of expulsion again, for when I give you another present it shall be a gown of my own choosing."

"O no, nor that wouldn't do neither: least ways, father would be sure to find out I were to get a new gown like that. I had to tell him a fib about this one—that I'd saved up my money to buy it. He does give me a shilling once in a way; but he's dreadful near. I know I didn't ought to have taken that money from you; but I did so want to buy something new for to-day, and it seemed to come so handy

"Sweet simplicity!" said Weston, with his artificial smile. "There are women in London with not half your attractions whose milliners! bills come to five hundred a year; and are some times paid, too."

He strolled by Miss Bond's side under the trees, thinking this the pleasantest part of his stewards ip. Mr. Harcross met them face to face presently, and marked his friend Weston's rustic flirt tion as he went by, in conversation with one of the chief tenants, a stalwart farmer of the genuine Speed-the-I lough type, to whom he had been specially introduced by Sir Francis, and who volunteered to support him as vice-chairman at the dinner-table. The stew the tables at which they were to preside, and Mr. Harcross's lot had fallen on one of the tables at the earlier and humbler banquet.

"I'll stand by you, Mr. Chairman," said Mr. Holby, the tarmer; "I think I know everybody within ten mile of Kingsbury, man, woman, and child; and all I wish is, that there was enough of 'em to gather my hops without emplying any of these here Irish tramps."

"You belong to Kingsbury, do you, Mr. Holby?"Hubert Harcrossasked, with a thouligtful face, when he had done a good deal of duty talk about corn and hops,

" Higgs's farm, sir, within a mile of Kings bury Church. I've farmed that land of Sir Francis's ever since old Higgs died, which is above seven-and-thirty year ago."

"Higgs's farm; yes, I remember. That's not far from a place called Brierwood, is it?" " Not above two mile. I've walked it many a time between tea and supper, when Richard Redmayne was a pleasanter kind of fellow than he is now, twelve or lifteen year ago, when his daughter that died was only a little lass not higher than that"

He held his sunburnt hand a yard or so from the ground, looking downward fondly as if he could see the fair head of that little lass as he

had seen it years ago.
Who could have thought that it would be so s' arp a pain only to hear of these things? Mr. Harcross felt as if a knife had gone through his neart. It was some moments before he could speak. O God, to think of her a little innocent hild, and that she should have been predestined to love him dearly, and to die broken-hearted

He would have let the subject drop at once, as a theme unspeakably painful, had he not been eager to satisfy himself upon one point. There had been something in the farmer's speech which mystified him not a little.

"You spoke of Richard Redmayne as if you d seen him lately," he said; "I understood had seen him lately," he said; the whole family had emigrated."

"Ay, ay," answered the farmer, with ponderous slowness; " the family did emigrate-Jim and his wife, and the two boys, tall well-grown

out to Australia, where Richard had bought a stiffish bit of land, I've heard say, for about a tenth part the price an acre as you'd give in these parts. They went out, Jim, his wife, and boys, soon after Richard's daughter died. She died away from home, you see, sir, and there was a good deal of trouble about it; and I don't believe as anybody hereabouts knows azactually the rights and wrongs of that story; and it's my idea as there was more wrongs than rights

Whereupon Mr. Harcross had to hear the story of Grace Redmayne's death, delivered conjecturally, by Mr. Holby of Higgs's farm, after, a rambling fashion, with much comment-

ary. "It were a sad loss for poor Rick, sir; for she was as sweet a young woman as ever stept," concluded the farmer.

Mr Harcross was compelled to repeat his question.

"I asked you if Mr. Redmayne was still in

Australia," he said,
"Ay, ay, to be sure, to be sure. No, not Rick Redmayne. Jim and his wife and hoys are over yonder, but Richard come home the other day, as changed a man as I ever saw. Him and me used to have many a pleasant hour together of a summer evening, with a pipe of tobacco and a jug of homebrewed. But that's all over now He hasn't been anigh his friends since he come back; and he lets his friends see pretty plain as Le don't want them to go anigh him."

"He is at home, then—at Brierwood?"

"Yes. I saw him standing by the gate the night before last, as I drove home from mar-

To say that this intelligence awakened any thing like fear in Hubert Harcross's mind would be to do him injustice. He was not the kind of man to fear the face of his fellow-man. But the knowledge that Richard Redmayne was near at hand filled him with a vague horror nevertheless, "Of all men else I have avoided thee." True that even if they met face to face, there was little chance of his being recognised by Grace's father. That foolish gift, the locket with his likeness in it, had been lost. Grace had told him that during the brief dreamlike railway journey betwixt Tunbridge and London, when she had sat with her hand in his, confessing all the sadness of her life without him. Strange to look back upon it all, and think of himself, almost as if he had been some one clse outside that sorrowful story; to think of himself and all he had hoped for and looked forw rd to that day, when he had deemed it possible to serve two masters, to hold his ap-pointed place in the world, and yet make for himself one sweet and secret sanctuary remote from all worldly influences.

No, that schoolboy love-token, the locket, being happily gone, there was no fear of any recognition on the part of the farmer, even if they were to meet; nor under the name of Har cross could Richard Redmayne suspect the presence of Walgrave. "So, for once in a way, that absurd change of name is an advantage," thought Mr. Harcross.

The first dinner-bell rang while he was hold. ing this review of the situation, a cheery peal, which brightened the faces of all the diners, Colonel Davenant would fain have fired a cannon as the signal of the feast; b t this idea not being received favourably, was obliged to content himself with the great alarm-bell, which hung in a cupola above the tall, and a line old Indian going which had been brought out upon the lawn, where the Colonel himself officiated, with very much the air of an enterprising showman at a country

air.
"Now, Harcross," he cried presently, swooping down upon the barrister as he sauntered under the trees beside Mr Holby of Higgs's arm,-" now, Harcross, you know your tent, don't you, old fellow, the one with the blue dags? Your people are pouring in already, You really ought to be in your place, you know

"Be in time," said Mr. Harcross, laughing:

just agoing to begin."

He shook off all thoughts of Grace Redmayne's father, for the moment at least, but not without an effort, and made his way to the blue-flag-bedecked marquee, attended by his esquire, Farmer Holby,
"You must propose almost all the toasts,

Mr. Holby," he said, in his careless way; " for I really haven't a notion of what I am expected

This was hardly fair to Colonel Davenant. who had existed for the last week with a pen-cil in one hand and a pocket-book in the other, and had drawn up claborate plans of the tables, with everybody's appointed place thereat—so that no rural Capulet should find himself scated next his detested Montague, no village Ghi-belline discover a Guelph in his neighbour— and made out lists of all the health-proposing and thanks-giving with as much brown study and mental tard labour as if he had been endeavouring to discover the "differentiate tween the finite and the infinite," which the Yankee lady was lately reported to have hit upon. What pains he had taken to coach Mr. to this!

(To be continued.)

MUSINGS AT A MONKEY SHOW, BY A DEVELOPED APE.

The maxim of the ancient sage was "Know thyself;" and, if Mr. Darwin be right, there can be no readier key to self-knowledge incipient (with a c not with an s) condition of humanity, than a visit to North Woolwich Gardens, where Mr. Holland has been exhibiting a small but select collection of apes. Considering the preponderance of this radimentary element in creation, the wonder is that the muster was not larger. Where are the performing monkeys whom conventionally nasty" organ-grinders exhibit on the top of their dolorous instruments of torture? spicuous by their absence. Where were those of a higher grade, who disport themselves or locomotive tables at the corners of streets? Represented by two undeveloped and one developed monkey, who—the undeveloped ani-mals—play drums, fire pistols, and otherwise imitate the manners and customs of their progressive brethren. Unfortunately the competition was small, and only extended to four or five classes; and Mr. Holland, wisely, as I

prove. The race of apes is not likely to die out, or be over-developed to the extent of eliminating the grand original type. As it is, Mr. Holland deserves our thanks for having brought to the front several distinctive types of humanity, undeveloped, and highly developed—babies, barmaids, cuts, and (last, not least) monkeys.

For, supposing one to be in a meditative n ood, where could fitter object-matter for uch reverie be found than these same monkeys? Look at yonder pair of chimpanzes, male and female, sitting quite in Darly and Joan fushion. The keeper drives a ball into the front of the cage. Notice the imitative way in which the gentleman chimpanzee watches the process and then tries to do the same. Were our ancestors of the "drift" period viser in their generation? In the next cage is a lady chimpanzee. She looks rather old: but chimpanzee ladies have a way of looking more or less passes. They have given her a little monkey which passes muster well enough for a baby. The keeper threatens to take the baby away. See the gesticulations of the putative mother. She clasps the baby to her breast, lays down the law, screams and rampages like a veritable human mamma.

See, here are the pretty little marmozet mon-See, here are the preny frate manifeser non-keys, looking like coy squirrel-eyed girls. If I were a marmozet, I should protest violently against being classed with monkeys at all. As a man, I submit, because, with t ose awfully human-looking chimpanzees full in view I can see exactly what Darwin and Lord Monboddo mean; but I cannot see any apishness about a pretty girl or the gentle marmozet. Talking f girls, there are the bonnet monkeys. When I looked out for them, I expected to see something in the shape of a Sairey Gamp chapeau, decorating the head of each, instead of which there was merely the slightest suspicion of a bonnet on the crown of a very pretty little species of monkey. This is a great fact, both for Darwin and the bonnet makers. The present apology for head-goar is, it appears, the grand original type, worn, no doubt, some geons before your general mother Eve." The lew monkeys, again I carnestly looked out for the Hebrew physiognomy, thinking I might trace the missing link where the monkey became merged in "the grand traditions of an ancient people". I saw nothing of the kind. I heard no marmur of "Old cio!" or "Shixhty per cent.;" but this I did see, a big monkey had watched until a little monkey next door put out his paw and got something nice in it. Down came the fist of the big monkey on that of the little one, and squeezed it until the blood came, and the poor little bit of undeveloped humanity gave up the bonne bouche, whatever it was. Then I fancied I understood the meaning of the nomenclature; and I strongly advised Mr. Holland, who was courteously accompanying me, to have the monkey-houses in the exhibition of the future semi-detached, at all events as far as concerns the Ghetto or Jews' quarters.

It was beautiful to notice the tender care of Mr. Jamrach's man for his prisoned confreres See, he is coming towards us with something his leg besides the inevitable nether gar ments, into which progressive apes have de-generated. He looks as though he had his leg in a muff; but that is an invalid chimpanze whom he is treating to an airing round the tent. It has been sitting in the straw apingwas going to say, without meaning to punthe manners of some developed valetudinarian Poor scion of our common stock! The fatal influence of unchimpanzee-loving England is upon thee. That backing cough is but too like humanity; only then I have heard a sheep cough just like it, when I have been crossing a field in the dead of night, and thought Old Scratch at least was along ide of me and had enught cold from keeping such untimely hours Jamrach's man kisses the chimpanzees, which, with all my fraternal feelings, I own I could not accomplish any more than I could salute a big full-blown male foreigner. It was always a marvel to me when I witnessed leave-takings or effusive meetings, at Boulogue, for instance how those bearded and odoriferous gentlemen stood each other's salutes. Probably they bave not developed so far away from primeval innocence as we inhabitants of a colder clime, Jamrach's man stands meditating by the blue mandrill, and, pointing to their particularly ugly jowls, says to me apologetically, "Young, sir; not come to their colour yet."

I then bethink me of certain blue-checked pencils. the Zoo, and rather youthful specimens better of the two. I have an immense realisation of the fact that Nature does nothing in vain; but I own I cannot fol-low out the artistic skill of that dab of blue colour on the jaws of the mandrill.

There was an arrival during my stay at the show in the person of a black monkey, which Mr. Jamrach's man declared puzzled him; but another gentleman catalogued it for me in a minute, and even spelt the name for me, so that I am not responsible for errors. It was, he said, the "hoolock" npc-1 confess the title looks dubious when written down. It was a large black monkey, lent by a private Harcross in his duties! And it had all come individual, and had this peculiarity, that a thin fringe of white ran round the face as if by way of frame. "Just," said an irreverent bystander of frame. "Just, said an freverent dynamicer (and I booked the joke on the spot), "like a Sister of Mercy." I suppose we all have our ancestral types; if so, certainly here was the original of those exceedingly useful and selfdenying ladies, who, it always appeared to m . could be just us useful and us self-denying without that sable habit and framework for their faces. Probably, on account of its semiecclesiastical appearance, this gentleman or lady in black was ranged alongside the capuchin monkeys, of which-or of whom-there was a considerable show, and whom I would recommend as pets to Father Ignatius down at Llanthony. They had a veritable cowl, and looked, if he will pardon me saying so, quite as monastic as that very unfriar-like young clergyman. However, cucultus non fucit monachum, the habit of the cowl does not make the monk out of the monkey, or out of the man.

Monkeys and apes, I think I could in pro-cess of time, get to claim some sort of kinship with, especially with the apes, who lack the caudal appendages which seem to fence off monkeys from mankind, or mankind from monkeys; but I must draw the line at baboons. There were a good many specimens of this class; and one of them delighted the eyes of five classes; and Mr. Holland, wisely, as I think, does not allow anything in the shape of a walk over the course; so that the prize-giving this year will be limited, but this will im-

They seemed to me out of drawing altogether; but then I am not a connaisseur. I never could see the beauty of a thorough-bred bulldog; so it is scarcely to be expected that Jamrach's man and I should be at one on the subject of bahoons. Another of these unsymmetrical animals amused itself idiotically by shaking its cage, until something equivalent to an earthquake seemed inevitable, and the requests of the attendants that he would desist than elegant, according to the estimate of humanity; but I fancy baboons like their langange strong.

There were, alas I no gorillas. I did think

of writing to a lady of my sequaintance who could, I am sure, have walked over the course, and would have appreciated the £5 premium; but I fear d she might not have recognised the compliment. There were plaster casts of the skull and head of one of these inter sting creaskin and head of one of these inter-sting croatures, and also a very young specimen dried; but these dried and stuffed articles look so very like "leather and prunella" that I contess, with all due deference to M. Du Chailla, I never have been able to get over a certain burking unbelief as to the existence of gorillas. I know it is very unscientific to say so, and that the same reason for doubt (namely, that I have never seen a specimen) would apply to the Dodo; but honesty is the best policy-1 am unscientific, and also, perhaps, therefore, sceptical. I said just now there were only two performing monkeys. I am wrong. There were only two on the platform, which, alas! would have accommodated two dozen; but there was another in the cage adjoining the infant gorilla. It was a remarkable animal, the body being of bright scarlet and light blue, and the face pure flesh colour At the word of command, and with a little assistance, it would climb up a yellow pole on waich it lived continually, and turn a somersault on the top. The most noticeable feature of this animal is its cheapness. Several organ-grinders, I found, had given one or two pounds for monkeys in the collection for the purpose of illustrating the Old Hundredth Isalin, or some other equally lively metody; but this climbing monkey can be purchased, pole and all, for a a penny at any toyshop. Some wag had sent one of these; and Mr. Holland, entering into

the spirit of the joke, allotted it a cage.

After all, attractive as the monkey-show proper was, there was another exhibition of ages at these gardens, which I do not mean to call improp r (nothing is improper at North Woolwich) but it was an exhibition of developed ap s like myself. From the monkey-show I passed to the dancing platform, and every lingering atom of doubt in Darwin vanished. Here I saw an inane young mandrill whose colour—that is, whose whiskers—had not yet come, disporting himself like a veritable ape. Pretty little children trisked about like marmozets. Lots of old wizen-faced chimpanzees sat under the trees, and looked on idly at the diversions. Yondergoesa real Macoba baboon, done up in the uniform of an artilleryman from South Woolwich; and of the pretty bonnet monkeys, how they tripped it to the sound of the band! I forgot to add that the baboon in the cage chewed tobacco to perfection. So did th artiileryman; and thus far we have retrograded, the baboon did not expectorate-the

utilleryman did Well, Mr. Holland has taught us a lesson which volum s on the development of species would never have done. His lesson is "writ-large," so that he who runs may read it. I tope we shall profit by it. I, for one, say, with the old comedian, "I am a man; I deem nought foreign to me that is human "-not eyen a monkey show at North Woolwich,-Land and Water.

The American *Exchange and Review* gives the following sketch of the manufacture of that on mipresent implement, the pencil,

HOW LEAD-PENCILS ARE MADE.

To start a first-class factory, with improved machinery and stock of well-seasoned wood, re-quires a capital of \$100,000; factory ground hair an acre, chiefly occupied by drying houses for the storage of calar. The Florida red codar is mostly used in this country and in Europe some "iben" wood, as the Germans call it, or English yew, is used in Germany, while white pine is used for a common grade of carpenters'

The "lead" of the pencil is the well-known graphite or plumbago; the best of this is the natural, found in a pure state in masses large natural, lound in a pure state in masses large enough to cut into strips. Of this there is but one mane now up to the standard, which is in Asiatic Siberia, and pencils made from this graphite are all one grade, and pay here 50 cents for gross special, and 30 per cent, ad valorem duty. The Cumberland mines, in Eng-land, were the first discovered, but are now almost exhausted. What was formerly refuse in cutting the graphite is now ground, cleaned and refined, and then mixed with a fine clay.

In mixing the clay and graphite, great care must be taken in selecting and cleaning the lay, and getting the proper proportions; the mixture, with water, after being well knewled. is placed in a large receiver and strongly comit the bottom, in the shape of a thread of the thickness and style required—either square, octagon or round. This thread, or lead wire, is ent into bars of the proper length (done by little girls) and then straightened, dried at a moderate heat, and packed in air-light crueibles and placed in the furness; the grade of the lead depends upon the amount of heat it is exposed to, the amount of clay used in mixing, and the quality of the plumbago. The coloring of the lead is by verious pigments.

The wood, after being thoroughly sousoned, is eut in thin strips and dried again, then cut into strips pencil length. These strips are grooved by machinery, then carried on a belt to the glueing room, where the lead is glued in the groove, and then the other half of the pencil is glued on. After being dried under pressure, they are sent to the turning room and rounded and squared, or made octagon, by a very inge-nious little machine, which passes them through three sets of cutters and drops them ready for polishing or coloring—the former is done on lathes by boys, and the latter by a machine which holds the brush and turns the pencil fed to it through a hopper. After the pencil is pol-ished, it is out the exact length by a circular saw, and the end is out smooth by a drop knife,

the poncil resting on an iron bed.

The stamping is done by a hollow die, which is heated; the gold or silver fell is then laid on the pencil, which rests in an iron bed, and the die is then pressed on it by a serew lever. The pencils are then ready to go into the packing room, whence they find their way to all parts of the civilized world at prices ranging from two dollars to twenty dollars per gross.

