

## Scientific Hints.

The sum of \$3,650,000 is now invested in the manufacture of iron in the Birmingham (Ala.) district.

Two hundred and forty-four earthquakes, it is stated, are known to have occurred during 1881, of which 86 were in winter, 61 in autumn, 56 in spring, and 41 in summer.

A lacquer for steel may be made of 10 parts of clear mastic, 5 of camphor, 15 of sandarac and 5 of elemi gums dissolved in pure alcohol, filtered and applied cold. This varnish is transparent.

Unripe grapes contain an unusual large quantity of extractives, acids, ash and phosphoric acid, and a small proportion of alcohol, the extractives having, as a rule, a sort of gelatinous consistency.

The blood of crabs and other crustaceans has been proved by M. Fredericq to have the same saline constitution and the same strong and bitter taste as the waters they inhabit; it has not the same constitution as the water, and thus shows a marked superiority over that of crabs.

The post-mortem examination of a mulatto woman who died recently in Cincinnati revealed a brain weighing 61 ounces. There are on record but two brains heavier than this—that of Cuvier, weighing 64.33 ounces, and Abercrombie's, which weighed 63 ounces. The mulatto was not considered bright intellectually, yet is described as becoming late in life, "thoughtful and reserved." He had been a slave.

A new method of storing grain is proposed in air-tight cylinders or bins of sheet iron, to be sealed after a partial exhaustion of the air. It is said that wheat, flour and bread so stored for seven months have been found in excellent condition, and that taking into account the security of the grain against dampness, fermentation, attacks of insects and large vermin, fire and other risks, when sealed up in a partial vacuum, the new plan is more economical than ordinary storage in a granary.

A series of tests at Bochum, Germany, to determine the value of bituminous coal in the making of steam, show that washed slack, holding 18 per cent. of water and 9.9 per cent. of ash, evaporated 5.7 pounds of water per pound of fuel; while the same coal, with only 3 per cent. of water, made from 8 to 8.5 pounds of steam. Making due allowance for moisture by reducing to a standard of like quantities of coal, free from moisture, there is found to be a direct loss by using wet coal, of 14 per cent.

Gordon's new huge dynamo-electric machine has been tried at East Greenwich, England, and has proved a great success. It maintained 1300 Swan lamps in a state of incandescence, while but a fraction of its full power was called into exercise. The inventor believes that only with generators of electricity capable of supplying from 5000 to 10,000 incandescent lamps at least the problem of economical electric illumination can be solved. In the machine just tried the induced coils remain fixed, while the electromagnets revolve.

The celebrated Gobelin Factory was originally intended for dyeing, and Gile and John Gobelin, the most noted dyers of that time, were its founders. These two men appear to have become famous by reason of their having introduced into Paris a celebrated scarlet. Their workshops were established on the banks of a small stream called the Bievre, near to Paris. Like many enterprises regarded by the people of that time as eccentric, these workshops received a nickname, and under the appellation of the "Gobelin Folly" they continued till 1667, when the whole property and plant were purchased by the King at the suggestion of Colbert. The works were then converted into a royal factory for all kinds of artistic articles of painting, such as sculpture, designing and tapestry weaving. The era of the Gobelin tapestries then began, and they rapidly acquired deserved celebrity.

## The Disadvantages of Rapidity.

By the way, Ballard Smith tells a story of a North Carolina wedding. It runs this way: It was in the Carolina backwoods; a country couple and country parson. Though a Baptist, the minister wore an old surplice. When he had finished the ceremony he said: "And them'uns who God hath joined—" "Stop that, parson," said the groom; "don't say them'uns, say these'uns!" "John," said the parson, "I teach you at school, and I say them'uns!" "These'uns," shouted the groom, drawing his pistol. The parson seeing the movement, fired through his surplice and the groom dropped dead, winking the parson as he went down. There was a lively fusillade of perhaps thirty shots. When the smoke cleared away a half dozen men were on the floor. The bride peeping over the pulpit to which she had fled for refuge, gazed mournfully on the scene and said: "Them a-self-cockin' pistols is a playin' hell with any prospects!"

Large buttons are not so much employed for outside wraps as they were last year.

## Carradine's Love.

Carradine sat alone at his easel, painting; and as he painted he thought of eight years before when he was a poor and struggling boy, just entering on that race which must be run by every aspirant to art and its honors, there happened to him something which neither time nor toil had been able to efface from his memory. As he was passing along the street a wreath of fragrant roses suddenly fell on his head, and, looking up in wonder, he beheld, reaching out from the embroidered draperies of an overhanging window, a child with fairy-like proportions, with great, dark eyes and long, curling black locks, who stood smiling and throwing him kisses from her curved lips, colored like a pomegranate. While she still gazed a nurse had come forward and drawn the child away; the curtains were closed, and he saw the little creature no more.

Such was the vision that the artist had carried so long in his memory; in his memory only, for he had no second glimpse of the child. That very day an accident occurred which kept him a prisoner in his room for some weeks, and when next he went out the house was empty, and a placard with great flaring letters announcing it for sale stared him in the face, from the same window in which the little white-robed elf had stood waving her hand and smiling to him. In course of time other faces appeared there, but they were strange faces, and among them was never the one for which he looked.

Now, as Carradine sat painting alone, he thought of all this; of the struggle that had ended at length in success; of his hard unfriended boyhood, and of the beautiful child with her fragrant rose-crown which had seemed almost like a prophecy. That rose wreath, dry and withered now, was all that was left to him of the fair vision, but when the morning, in turning over an old portfolio, he had come upon it by chance, it spoke to him of that by-gone day just as eloquently as when its blossoms were fresh and full.

"Eight years ago," he said, thoughtfully, letting the shriveled circle slip through his fingers slowly. "She must be sixteen now—if she lives. If? No, I do not doubt her living presence—somewhere. I wonder where she is now, and what she is like at sixteen?"

With that he placed the wreath beside his easel and began to paint. The face as it grew on the canvas, presented a young girl in the dewy morning blush of first youth, with shadows in the great dark eyes, and a half smile about the bright curved lips like an embodied summer sun shower. It was thus that the artist pictured his ideal of the child-woman, whose infantile look and smile for eight long years had been his own dream of love.

Carradine had not had an easy life. An orphan from his earliest years, poor and unfriended, he had striven hard for the means to gratify that inherent idolatry for art which was always clamoring to find expression in form and coloring. He had fought and he had won; but now, at 26, he stood in the place which he had gained for himself almost as much alone at the very heart as he had been eight years before, when the child's gift came to him as a prophecy.

It was not that he was friendless. There were men who liked and sought him, women who would have gladly taught him to forget his loneliness in their affection. But though his nature responded readily to any kindness, there was one chord, deeper than all, that remained untouched; and, from the sweetest glances, his thoughts went back to the unknown child that had smiled down on him so long ago.

The ideal head became his great source of enjoyment, and a dreamy softness shaded his dark-gray eyes, as line by line and tint by tint took him back into that past, which, all lifeless as it was, seemed to him, in those moments, more real than the busy present. Yet now, in reviewing that one bright vision of his memory, it was not so much the lovely child that he saw, in fancy, as the beautiful girl whose face, with fuller depth and sweetness, looked out at him from his own canvas.

Instinctively, he hardly knew why, he disliked to work on this picture in any other presence, and he devoted to it only his hours of solitude. So it happened that it was nearly finished when, by some chance, a friend discovered him bending over it, too absorbed to notice any approach. As the door opened, Carradine rose hastily, turning his easel to the wall, so as to conceal the face upon it. This little stratagem, however, was destined to be of no avail. Having been marked by the intruder—one of those cordial, well-meaning people, good-natured to a degree, but with little delicacy of perception—the action at once aroused his curiosity.

"Aha, master painter," he said, with a laugh, "let us see what it is that you work at by yourself till it steals away your eyes and ears. Only one peep!"

With that, he laid his hand on the

frame, and, receiving no forbidding word from Carradine, turned it around. The next moment he was loud in praise.

"But who is it, Carradine? If it is a portrait tell me where to find the original, and I will, if it is a seven days' journey!"

Carradine smiled. "If I myself knew where to find such an original, I should not be here to tell you my good friend," he answered, evasively.

"Oh, a fancy sketch," said the other, misled, as the artist had desired. "I might have saved myself the trouble of asking. No real flesh and blood face ever looked like that—the more shame to nature, I say! Of course you will exhibit it, Carradine?"

"No," answered the painter quietly. "No!" repeated the other in surprise. "But, my dear fellow, you must, or I shall betry your secret, and you will have a swarm of visitors, worse than a plague of E. y. t, let in upon you."

Carradine hesitated. A chance word in his friend's speech had suggested a possibility that made his heart leap in spite of sober reason.

"You are right," he said. "I shall send the picture for exhibition. It will be better so."

After his visitor had left him alone again, Carradine bent long over his easel, gazing into the lovely, upturned face, until it began to fade into the gathering twilight.

"If—if!" he murmured to himself, half unconsciously. "But it cannot be. Yet I will send it—and perhaps—"

And so the picture was sent, in due time; and it seemed almost as if Carradine's soul had gone with it and drawn him to follow. His next hour, and day after day, he sat in the gallery, scrutinizing eagerly every face amid the visitors, whom taste or fashion had brought to look at the new celebrated artist's latest success. Every night he went away unsatisfied, and every morning he returned with hope springing afresh in his heart.

Still, the object of his search, whatever it may have been, does not appear, and one day, discouraged at last, he resolved to go no more on so fruitless an errand. Shutting himself in his studio, he began to paint, but, strive as he would, he could command neither hand nor fancy. Finally, tired of repeated failure, he abandoned work, and yielded to the impulse which drew his steps in the customary direction.

When he entered the small side-room in which his picture hung, he found but two persons within, a young man and a girl.

Carradine could not see the faces of these two, but with an earnestness for which he was at a loss to account, he followed their retreating figures as they moved slowly toward his picture. But the next moment an exclamation of astonishment burst from the lips of the young man.

"Why, here is your portrait, Leila! What does it mean? Who can the painter be?"

With that, he hurried out to purchase a catalogue. Carradine advanced quickly to the girl.

"I am the painter," he said. She turned and looked at him with one steady gaze from those glorious eyes that had haunted his visions for so many years. Then she spoke:

"You painted that picture? and how?"

"From remembrance," he answered. "It was my only tribute to the little unknown princess who crowned me once with roses. Does she, too, remember it?"

For a moment doubt was in her face; but as he looked fixedly at her it vanished in certainty. A smile just touched the bright lips.

"It was you, then, on whom I forced my roses? a princess who gave away honors unasked. How often I have wondered since—"

She stopped, turned to the canvas, and added abruptly, "But I was a child then; and here—"

"Here you are a woman," said Carradine, completing the unspoken sentence. "Is it so hard to understand? The same power that kept the child in my heart showed me into what she would ripen."

She did not look at him now, but at the picture, as she asked in a low voice, "And whom am I thank for such an honor?"

"My name is Hubert Carradine," he answered, and saw at once that it was no unfamiliar word to her. "And yours? Through all these years your face has haunted me always, but your name I never knew."

She hesitated a moment, then turned to him.

"You never knew my name? Then think of me still as you have thought of me through all these years," she said, a half smile lingering about her mouth, but never lighting the great dark that was shaded by subtle sadness. The look, the tone, transported Carradine beyond all remembrance of place or circumstance, into the unreal realm of imagination in which his wish was supreme ruler.

"I have thought of you always as

my life and my love," he said, half unconsciously, his dreamy, deep gray eyes glowing upon her face. She blushed suddenly, and then paled in an instant. Just then her former companion entered the room.

"Am 'Leila Auverney,' she said hastily, "and this is Cecil Wyndham, my—my betrothed husband."

Not another word was said. As the young man approached, Carradine fell back a step and looked at the two. He was a fair, handsome face, so little marked as yet by time that it would be hard for an unpracticed eye to conjecture with what lines the shaping character would yet stamp it. Nevertheless, with one keen gaze Carradine estimated both present and future.

She said a few low-spoken words to her companion, who presently moved toward Carradine, and addressed him.

"I have the honor of speaking to Mr. Carradine, the painter of this picture?"

Carradine bowed without speaking. "Will you pardon me for asking if it is a fancy sketch?" continued Mr. Wyndham.

"Partly so, but suggested by the face of a little girl," answered the artist.

"But the likeness is so very striking!" muttered the young gentleman. "I must have it at any rate. Of course you will part with it—at your own price?"

"The picture is not for sale," said Carradine, quietly still regarding the young man with that cool, steady gaze which had already caused him to betray a hesitation, almost confusion, very unlike his usual easy confidence. He seemed to have an instinctive knowledge that the artist was measuring him, and to shrink from that measurement with unconscious dread.

Carradine saw Leila Auverney once more before she returned to her home in a distant town. Then he took his picture from the academy walls, and hung it in his studio, where his eyes could find it whenever he looked away from his work. For he did not give up work; yet, among themselves, his friends pronounced him an altered man, and marvelled what had caused so subtle a difference. Always quiet, he now seemed to live in an ideal world of his own; and, whatever he might occupy himself with, there was that in his manner which appeared to imply that it was only a temporary diversion until the coming of some event for which he was waiting.

So passed half a year, at the end of which there came a letter to Carradine. It was very brief, but it was enough to assure him of that which he had been almost unconsciously expecting.

The letter was from Leila Auverney. He went to her at once. She met him with a laughing light in her eyes such as he had not seen there when she stood in the gallery beside her betrothed husband; a light which recalled the merry child who had smiled down on him so long ago.

"Mr. Carradine," she said, "I told you that my fortune was gone, but I did not tell you how utterly it had been swept away. I am nothing better than a beggar. Will you take me for one of your students, for charity's sake?"

He looked searchingly into her smiling face.

"And Mr. Wyndham?" he asked in a low voice.

She laughed without so much as a flush of emotion.

"Mr. Wyndham has gone with the rest of my possessions. Did I not say that I had lost everything? You see, Mr. Carradine, that I am not as much worth as my picture."

The words, as she said them, did not seem bitter. He took her hands.

"Leila," he said, "does your loss make you unhappy?"

"Do I look so?" she asked, gayly. "As for the marriage, it was my father's wish, and to gratify his dying request I consented—before I knew my own heart—"

Here a quick, vivid color shot into her cheek, but she went on: "There never was love on my side; and on his—well, money is more than love with some natures. I do not wish to blame him."

Carradine's grasp tightened on her hands.

"Leila," he said, "once your answer put a bar between, when I spoke words that were surprised out of my heart. Would it be so now, if I should say them once more? My love, my life, will you come to me?"

"Will I come?" she repeated, looking up in his eyes and drawing nearer, until his arms silently folded about her.

And so Carradine found his love at last.

## They Would Meet as Friends.

Ex-Secretary Evans tells a story at his own expense about a small donkey which he sent out to his country seat for the use of his children. One of his little daughters, going out with her nurse to admire the animal in the paddock, was sorely distressed when the donkey lifted up its voice and brayed dolefully. "Poor thing! Poor thing!" exclaimed the sympathetic child—but suddenly brightening up she turned to her nurse and said: "Oh! I'm so glad. Papa will be here on Saturday, and then it won't feel so lonesome."

## The Law.

### Recent Legal Decisions.

**HUSBAND AND WIFE.**—An attorney at law sued a husband for legal services rendered to his wife in conducting a criminal proceeding against him for an assault and battery upon her, and for defending her against a charge of common drunkenness, preferred by him, and recovered judgment. The defendant appealed to the Supreme Judicial Court of Massachusetts. In this case (Conant vs. Burnham) Judge C. Allen, in the opinion, said: "The husband is bound to furnish his wife with whatever is necessary to her reasonable enjoyment of life and liberty; and legal services cannot be excluded from the term 'necessaries.' There may be occasions when such services are absolutely essential for the relief of a wife's physical or mental distress. This case supplies an illustration. The husband has committed an assault and battery upon his wife and instituted against her a criminal prosecution. What was she to do? Is it to be held that the woman, ignorant of legal rules and methods of proceeding, without money and without friends, not only deprived of the protection and aid of her husband but encountering his active hostility, was competent to defend herself properly on her trial before a jury? Such assistance was of value and necessary to the wife, for which the husband must pay, as for other necessities. In this State under its laws and customs, legal assistance was not necessary to the wife to enable her to prosecute her husband for assault and battery, as it is the duty of the Magistrate, upon her verbal complaint, to issue a warrant and investigate the case. The fee charged for services before the Magistrate, therefore, cannot be allowed, but as to the other charges the judgment is affirmed."

**TRUST FUND.**—A by his will gave \$75,000 to trustees to hold as a trust fund: 1. To pay B his brother, the income during his natural life, the payments thereof to be made to him personally when convenient, otherwise upon his order or receipt in writing—in either case free from the interference or control of his creditors, "it being my intention that the use of the income shall not be anticipated by assignment." 2. After B's death, the income to go to his wife upon the like condition so long as she remained single. 3. On her death or marriage, the principal to be divided among B's children. A creditor of B filed a bill in equity to compel the trustees to pay over to him from the income the amount of his claim. In this case (Broadway National Bank vs. Adams) the Supreme Judicial Court of Massachusetts dismissed the bill. The Chief Justice, Morton, in the opinion, said: "The Court will not compel the trustee to do what the will forbids unless the provisions and intentions of the testator are unlawful. The English rule subjects such an income to the payment of debts, and the Courts of several of our States have adopted that rule—Rhode Island, North Carolina and South Carolina—while the Courts of Pennsylvania, Vermont, Kentucky and the Supreme Court of the United States have rejected it. The question is an open one in this State. The founder of this trust was the absolute owner of the property left by him and he had the full right to dispose of it as he saw fit, and his intentions ought to be carried out until they are against public policy. The only ground upon which we can hold the restriction against public policy is that it defrauds the creditors of the beneficiary. It is argued that investing a man with apparent wealth tends to mislead creditors and to induce them to give him credit. But creditors have no right to rely upon property held as this is held and give credit to the beneficiary upon the basis of an estate the only income of which is declared to be inalienable. By the exercise of proper diligence they can ascertain the nature and extent of his estate, especially where all wills and most deeds are spread upon the record."

**DEBTOR AND CREDITOR.—FRAUD.**—B was sued by the United States in the United States Circuit Court for the district of Oregon, and judgment was recovered against him for \$35,228, and \$2821.60 as costs and disbursements. Pending the trial B confessed judgments to several persons, and the judgments, with the claims of the United States and the mortgage debt of B far exceeded the value of his property. The confessions were given on fictitious claims, except one for \$348.82, and were made for the purpose of hindering, delaying and defrauding the United States in the collection of its claim. Proceedings were taken to collect the judgment of the United States, claim of priority being made under Sections 3466 and 3467 of the United States Revised Statutes. The former declares: "Whenever any person indebted to the United States is insolvent, or whenever the estate of any deceased debtor in the hands of the executors or administrators is insufficient to pay all the debts due from the deceased, the debts of the United

States shall be first satisfied; and the priority hereby established shall extend to all cases in which a debtor not having sufficient property to pay all his debts, makes a voluntary assignment thereof, or in which the estate and effects of an absconding, concealed or absent debtor are attached by process of law, as to cases in which an act of bankruptcy is committed." B then filed a bill to defeat this action of the United States on the ground that what he had done did not bring him within the operations of the statutes and therefore did not give the priority claimed. Judge Dundy decided in his favor and in the opinion said: "The judgments entered on the confessions are not mentioned in the statutes nor provided for, and the United States cannot maintain its claim of priority. If Congress had any intention to reach fraudulent action as that of B it would have used words which would clearly have shown such an intention."

### STREET RAILWAYS.—NEGLIGENCE.

A car was stopped to allow a passenger to alight, and another passenger left her seat to get off the car. She had not given the conductor or driver notice that she desired to alight, but the car was at a stop when she arose, and went to the platform, and as she was stepping off it was started and she was thrown to the ground and injured. In an action for damages (Ratubone vs. Arion Railroad Company) the plaintiff recovered judgment, and the company petitioned the Supreme Court of Rhode Island for a new trial. The petition was dismissed, Judge Carpenter, in the opinion, saying: "In this case the car had stopped, and was apparently about to stop, for the convenience of a passenger and, in response to the signal of the conductor. We cannot say that, under the circumstances, it was the duty of the plaintiff, as a maker of law, to give notice that she also desired to alight. The stopping or slowing of the car in response to the signal we think might fairly be taken as notice by all the passengers that all who desired to alight might take advantage of the opportunity."

### Samson of the Theatre Francais.

After leaving Rouen, Samson was engaged at the Odeon Theatre, in Paris, and played there from 1819 to 1820. On April 1st of that year he entered the Comedie Francaise, in the Rue de Richelieu. Propositions had been made to him the year previously, but he felt bound to decline them, as the total sum of his appointments would fall very much below the 10,000 he earned at the Odeon. Of his first appearance he says: "I made my debut at the Comedie Francaise without brilliancy. I never liked a first appearance; I was too cowardly, and I have always wanted a considerably long time to familiarize myself with the public." And earlier, in his memoirs, Samson says of himself: "I have nearly always failed in my debuts: I do not understand how I can have obtained any success in new pieces. Whenever I had to play a part that was altogether new I was the most miserable of men, and a week before the first performance a sort of ill-humor would come over me. I began then to feel the tortures of fear."

His appointment of Professor at the Conservatoire in 1833 was only as a supernumerary; in 1838 he was in actual possession of the office. His class became celebrated, no doubt, because of his two famous pupils. Among his best parts as an actor were Bertrand de Ranzau in Scribe's play, "Bertrand et Raton;" le Marechal de Designey in "Lady Tartuffe," le Marquis in "Mlle. de la Seigliere." Besides his "Art Theatrale," Samson wrote some comedies, all of which had more or less success: "La Fete de Moliere," "La Belle Mere et le Gendre," "La Famille Poisson," and others. The last time he appeared on the stage was on the 31st of March, 1863. He was much applauded the whole evening, and as he came out of the theatre he was welcomed by a large and enthusiastic crowd of admirers. On the following day his resignation was formally accepted. He was then seventy years old, and had been before the public of the best theatre in France for more than thirty years. He died on the 31st of March, 1871.

His fountain of youth: A kind-hearted gentleman bestowed a half dollar on an unfortunate African who said he was unable to walk on account of rheumatism. Much to the philanthropist's surprise, he met the identical darky creaking about as lively as a cricket, but not quite so sober. "How about your rheumatism?" asked the benefactor. "Boss, when I puts myself outside of fifty cents' wuff of whiskey, I gits rid of all my troubles, includin' de rheumatiz. I just feels as if I wanted ter whistle fer a whole week."

The Board of Trade and the Chamber of Commerce of Cincinnati have adopted resolutions urging Congress to pass a bill extending the bonded period for whiskey.