WIZARDS IN FIGURES.

Some Wonderful Feats of Boys Who Became Famous.

GAUSS WAS A RARE GENIUS.

He Was Not Only One of the Greatest Mental Calculators on Record, but He Was a Gifted Mathematician. Dase's Marvelous Mental Work.

When scarcely three years old Gauss, according to an anecdote told by himself, followed mentally a calculation of his father's relative in regard to the wages of some workmen who were to be paid for overtime in proportion to their regular wages, and, detecting a mistake in the account, he called out, "Father, the reckoning is wrong; it makes so much," naming the exact amount. The calculations were repeated, and it turned out that the child was correct, while all who witnessed the performance were greatly surprised. He retained an extraordinary ability for mental calculations throughout life and remembered the first few decimals of the logarithms of all numbers, so that he was able to use the data of a logarithmic table in his mental calculations, and hence he possessed a mental slide rule—a unique possession.

Gauss was not only one of the greatest mental calculators on record, but he excelled equally in all branches of pure and applied mathematics. At the age of twenty he discovered the first rigorous proof of the fundamental theorem of algebra, which affirms that every algebraic equation has as many roots as its degree, and at the age of twenty-four he published his great work on the theory of numbers under the title "Disquisitiones Arithmeticae." Later in life he turned his attention principally to applied mathematics, especially to astronomy and geodesy, and he is generally regarded as the last of the great mathematicians who were pre-eminent in nearly all branches of mathematical knowledge of his day.

While Gauss was both a great mental calculator and a great mathematician and was a real mathematical prodigy, we proceed to consider several who were merely arithmetical prodigies and seemed to have very little general mathematical ability. The greatest of these is Dase, who was born at Hamburg in 1824 and "seems to have been little more than a human calculating machine, able to carry on enormous calculations in his head, but nearly incapable of understanding the principles of mathematics and of very limited ability outside his chosen field." His extraordinary ability in mental calculation is evidenced by the fact that he was able to multiply mentally two numbers, each of which contained 100 figures. It took him eight and three-quarters hours to perform this feat, which stands in a class by itself, as no other arithmetical prodigy is known to have been able to multiply mentally two numbers each consisting of more than thirty-nine figures. Two forty-figure numbers Dase was able to multiply in forty minutes, while he would multiply two eight-figure numbers in less than one minute.

What is most surprising about this greatest calculator on record is that he was stupid in mathematics. Petersen is said to have tried in vain for six weeks to get the first elements of mathematics into his head, and other eminent mathematicians found that he had very little mathematical ability. Fortunately he was advised by some of the leading mathematicians of his day to turn his extraordinary ability to scientific uses instead of going around the country giving public exhibitions, a career upon which he had entered at the age of fifteen. He calculated many useful tables and was engaged on an extensive factor table at the time of his death. The ease and speed with which he could count the numbers of books in a case, the number of sheep in a herd, etc., were almost more surprising that his extraordinary ability as a mental calculator.

Another well known mental calculator, having even less mathematical ability than Dase, is Buxton, who remained illiterate through life, although his father had some education. He had a wonderful memory for numbers and could call off long numbers from right to left or from left to right with equal facility. On one occasion he squared mentally a thirty-nine figure number in two and a half months. He was extremely slow and in this respect resembled a negro of the name of Tom Fuller, who is known as the Virginia calculator. Although entirely illiterate, he was able to reduce mentally years and months to seconds and could multiply two nine-figure numbers.

Darboux has called attention to an infant prodigy, Joseph Bertrand was born in Paris in 1822 and was such a delicate child that his parents did not expect him to arrive at manhood, and hence his early education was partly neglected. At the age of four he was sick for a long time and overheard the lessons which were given his brother in the same room. He knew the letters of the alphabet, but nothing more. When he was convalescent his parents brought him a book to look at the pictures, and he relates in his account of his childhood that he remembers distinctly how he shocked his parents by reading the text fluently. His frightened father snatched the book from him and commanded that under no pretext should he be allowed to do any work.

The manner in which he learned elementary algebra and elementary geometry is still more extraordinary. We reproduce his own account:

"At the age of nine I had the great misfortune to lose my father, who during the last year of his life resided with my uncle, who directed then a school preparing for L'Ecole Polytechnique. The students, the youngest of whom was twice my age, loved me very much, and I was happy in their midst. I was assiduous at their recreations and often followed them to their classes. The teachers regarded me with astonishment, but paid little attention to me. The students observed that I understood the work, and when a demonstration appeared difficult the first one who noticed me would run after me, take me up in his arms and, placing me on a chair so that I could reach the blackboard, make me repeat the demonstration."

At the age of sixteen he entered L'Ecole Polytechnique, and as the examiner knew that he had already passed the examination for the doctor's degree in science he gave him some very difficult questions. From one of the answers it appeared that Bertrand had never opened a table of logarithms. The examiner considered this answer an impertinence, but gave him the highest grade. At L'Ecole Polytechnique Bertrand says that he was a problem for his companions. He always received the highest grades, but he was ignorant of some the simplest things. For instance, he did not know what words were called adverbs, as he had never prepared a lesson in literature or in science.

Bertrand's extraordinary youth gave rise to many marvelous stories. Fortunately he wrote a brief account of his early life when he was elected in 1884 to the French academy; hence we have a more reliable sketch of this infant prodigy than is possible to obtain in most other cases—for instance, in the case of his countryman, Pascal. The facts that Bertrand was permanent secretary of the Academy of Sciences for more than a quarter of a century, that he is the author of many theorems relating to modern mathematical subjects and that he lived so recently add interest to the account of his marvelous early education.—Scientific American.

THE DEED OF A HERO.

How a Brave Boy Helped to Save the Indian Empire.

Not all the courage of war is expended on the battlefield. A boy once performed a deed which contributed greatly to save the Indian empire. At the time, in 1857, he was a mere lad employed as an assistant in the telegraph service. His name was W. Brendish, and he sent at the risk of his life a dispatch from Delhi to Umballa which bore the first news of the outbreak. This message, repeated to every town which could be reached, proved of priceless value. Colonel Edward Vibart in his "Sepoy Mutiny" tells the story of how, to quote the judicial commissioner of the Punjab, "the electric telegraph saved India."

It was the custom to close the telegraph offices on Sunday between the hours of 9 and 4. On May 10, 1857, as the operator at Delhi was about to close his station he received a message from the Meerut office announcing an uprising in that section. At 4 o'clock, when the office was reopened, connections with Meerut were found to be interrupted.

The telegraph force at Delhi consisted of the chief and two young assistants, Brendish and Pilkington. The office was situated outside of the city about a mile from the gates.

On discovering the break in the connections the officer in charge sent the two lads to test the cable across the river. They found that they could signal to Delhi, but not to Meerut, and reported the fact on their return. It was too late to do anything that night, but the next morning Mr. Todd, the chief, went out himself to investigate the line. He never returned, and, although his fate is unknown, there is little doubt that he was murdered.

The office was thus left in charge of the two lads. Signs of trouble began to be evident close at hand. Brendish, stepping from the door, met a wounded officer, who cried out to him, "For God's sake get inside and close your doors!"

The revolt crept closer and closer. The boys felt that their lives were in danger. Soon they became sure of it. But before they fled to a place of comparative safety they waited to send out to the Indian world the news of the revolt.

Brendish ticked out the message which caused Sir Edward to say:

"Look at the courage and sense of that little boy! With shot falling all round him, he stayed to manipulate the message that was the means of saving the Punjab."

The government rewarded Brendish for his services by giving him a life pension, and as an old man he died in the India he had helped to preserve.

Fans In the Eighteenth Century.

A letter in the London Spectator dated May, 1711, gives a most interesting description of an academy where ladies could be drilled in the proper use of their fans and initiated into the mysteries of "the angry flutter, the modest flutter, the timorous flutter, the confused flutter, the merry flutter and the amorous flutter." In the eighteenth century at dancing assemblies in London, Bath and other places of fashionable resort gentlemen chose their partners by "lottery of the fan." The fans of all the ladies present were placed in a hat, whence each gentleman had the privilege of selecting one, the lady to whom it belonged becoming his allotted partner for the evening. Of course such a custom entailed a great study of fans on the part of the gentlemen. Boswell, Steele and Pope found something to say about the fan, and Guy, enlarging upon the efforts of his predecessors, wrote a long poem in praise of the fan, attributing its invention to Venus.

Did He Refuse?

They were alone in the conservatory. He turned to her. His voice was low, but passionate.

"You know," he said, "why I have asked you to come here. Will you be my wife?"

She looked at him intently.

"No," she answered, and she uttered the monosyllable as if she loved it.

No doubt she expected him to reel and clutch at something, but he did nothing of the sort.

"Very well," he briskly said. "That's all I want to know. Shall we go in and finish our dance?"

She stared at him in wonder.

"Are—aren't you hurt by my refusal? Don't you intend to do something desperate?"

"Desperate? Certainly not—unless you call tackling the lobster salad desperate."

Her pride was sorely wounded. She had meant to hurt him. It would have been a proof of her power. Now she hungered for revenge. There was only one way to get even with him.

"George," she said, "I have reconsidered my decision. I will be your wife."

And the two scrawny rubber plants and the three yellow palms quivered with suppressed laughter.—Cleveland Plain Dealer.

The Lace Dressers.

Lace dressing has been considered a necessarily unhealthful occupation on account of the intense heat required to be maintained in the room. In some cases the temperature exceeds 100 degrees F. and much moisture is evaporated from the wet fabric. The evidence brought forth at a recent investigation in England, however, shows it to be an exceedingly healthful pursuit. New workers are often temporarily upset at the beginning by the high temperature, but no cases could be found where health had broken down. On the contrary, some ailments—colds, for instance—were found less prevalent among lace dressers than among the workers in other branches of the industry. Time keepers' books showed few absences from illness. No special tendency toward lung diseases could be found, notwithstanding that most of the workers lived in poor and insanitary localities and led irregular lives. Many lace dressers now enjoy vigorous old age after doing this work from childhood.—Indianapolis News.

The Deaf and Dumb.

In early times it was an opinion, maintained even by philosophers, that the education of the deaf and dumb was impossible. It was then believed that language could be acquired only through the medium of the ear, as shown by the couplet of Lucretius:

To instruct the deaf no art could ever reach,
No care improve them and no wisdom teach.

The first mention of instruction for the deaf and dumb is found in Bede, A. D. 685. No other case is met with for some centuries. Rudolfus Agricola of Heidelberg makes mention of an educated deaf mute in his "Dialectica," 1480. It was not until 1620 that instruction for the deaf and dumb began to be general.—New York American.

Frederick the Great.

Frederick William I., father of Frederick the Great, was a most brutal old fellow, treating his son almost as badly as they treat the exiles in Siberia. Unable to endure such barbarity on the part of his father, Frederick resolved to run away and seek refuge at the court of his uncle, George II. of England. Ready to assist him in his attempt were his two young friends, Lieutenants Katte and Keith. By the imprudence of Katte the secret was found out, and Frederick was placed under arrest. Keith escaped, but Katte was tried by court martial, sentenced to death and executed. Frederick also was sentenced to death and would have been shot but for the earnest expostulations of the kings of Sweden and Poland.

A Powerful Combination.

Tim was a protege of Mr. Blank, a well known Boston lawyer. He was often in trouble, but by personal influence with the courts Mr. Blank managed to have him let down easy, so it became a matter of talk, the Green Bag says, that he did not suffer greatly in being arrested.

"How is it, Tim," some one asked one day, "that you are arrested very often, but never go to jail or pay any fines?"

"It's just this way," Tim replied. "I have Mr. Blank for me lawyer, and what he doesn't know about the law I tells him."

Didn't Want to Be Left.

Miss Vere—Mr. Desmond, why did you go to the dining doom before you greeted the hostess? Mr. Desmond—Well, the hostess will keep, but the refreshments seemed to be getting away.—London Telegraph.

Water.

"Water," said the scientific person, "is H²O."

"Yes," answered Dustin Stax as he laid aside the market report, "some of it is and a great deal of it I. O. U."—Washington Star.

Easy Answer.

Spriggins—I can always tell when I am at my office whether it is a bill collector or a client that touches my electric bell. Higgins—You can? Spriggins—Yes; no clients ever come.—Somerville Journal.

The Tattlers.

Billings—A man never learns to really know his wife until after they are married, no matter how long they may have been engaged. Darrow—You're wrong there. Sometimes the girls have little brothers.

CROSSING THE OCEAN

Queer Things That Happen on Atlantic Liners.

THE LURE OF THE DEEP SEA.

Passengers Oftentimes Vanish During a Voyage to Find a Grave Beneath the Waves—A Bibulous Man's Leisurely Swim In Midocean.

"Queer things continually happen during a voyage," said a veteran purser of an Atlantic liner.

"As you are probably aware, almost the commonest occurrence during a voyage is the mysterious and sudden disappearance of a passenger. Seven times has this happened while I have been following my profession, and in no single instance have we been able to satisfactorily account for the missing traveler. Most of them, of course, we put down to suicide, but I feel bound to say that I think in some instances we have been wrong. Now, here is a case in point. Six years ago we had on board a young Australian, a handsome, well set up fellow, who seemed to have more money than would satisfy his wants and who told me himself that he was going to the states to marry the prettiest and sweetest girl in all Pennsylvania.

"He was the brightest fellow on board, sang well, played well, was expert at all kinds of sport and a general favorite with every one. He had a cabin on the lower deck, a fine big room, where I smoked many a cigar with him. Well, on the fifth day out he didn't come on deck. People asked where he was, and the general impression seemed to be that he had been up rather late the night before and was doubtless taking a few extra minutes between the sheets. But about noon the bedroom steward came to me and stated that he couldn't get in No. 27—the stateroom occupied by the popular traveler. No one could get any response, so we sent for the carpenter. The door was smashed in, and the room was found to be empty. The portholes were wide open, and all we could assume was that he had crept out of one of these and met with a watery grave. Reason? We never discovered any, but my belief is that he acted in his sleep. He was too happy a man to take his own life.

"On another occasion two ladies, sisters, disappeared. Both were charming and pretty, though some of the passengers afterward remarked that they usually seemed somewhat sad and preoccupied. I had often conversed with them and regarded them as the most attractive women on board. The night before we docked was a beautiful one, though intensely dark, and it was evidently on this night that they left the ship. No one saw them after 10 o'clock. The lookout reported nothing. No splash was heard, no cry. But in the morning they had vanished as silently and mysteriously as the darkness, leaving no word behind.

"A strange thing happened once when we were two days from New York harbor. There was an American on board who seemed to possess many friends and who apparently was extremely popular. He spent half his time in the smoking room, standing drinks to any one and every one and imbibing rather more than was good for himself. Well, about 4 o'clock in the afternoon he was with several other men on the promenade deck—the weather was glorious and the sea with scarcely a ripple—when, throwing off his coat, he exclaimed, 'Here goes for a swim!' and disappeared over the side.

"There was a yell which almost put the wireless out of business, and the captain, who had witnessed the affair, stopped the ship almost in her own length. Boats were lowered, and willing arms pulled to where the man was supposed to be fighting for his life. Instead of any struggle, however, he was taking long, easy strokes and evidently thoroughly enjoying himself. When pulled into one of the boats he ejaculated the single word, 'Grand!' and almost immediately fell into a kind of comatose state. He was put to bed in hot blankets and soon recovered. After an interview with the captain he was allowed his liberty, though a strict watch was kept on him during the rest of the voyage.

"A tragic occurrence took place about four years ago, the facts of which you will perhaps recall. It was during a voyage east, and we had among the second cabin passengers a widow and her three young children—two boys and a girl. The woman appeared to be much depressed, though the youngsters were as lively and merry as children generally are on board. The woman, it appears, spoke to none of the other passengers, and for her aloofness she was regarded with some suspicion. However, she was very quiet, and, as she appeared to be reading all day, not much notice was taken of her.

"One morning she was standing with her children, looking over the side of the vessel, when, with no warning, she suddenly tossed them, one after the other, into the sea and immediately followed them herself. It was all done so expeditiously and quietly that those who saw the tragedy were for a few minutes too dazed to give the alarm. The ship was stopped in record time and boats lowered, but the entire quartet had disappeared as though some invisible force had dragged them down. After two hours the search was given up and the boats returned to the ship. Another secret had been bequeathed to the ocean's mighty bosom."—London Tit-Bits.

A TARDY RECOGNITION.

The Absentminded Professor and a Most Intelligent Woman.

It was La Fontaine, the fable writer, who in his son's absence during several years in pursuit of an education quite forgot him and was not reminded of his existence until a friend arranged a surprise meeting.

The father was pleased with the manners and wit of the young man presented to him, but failed to recognize him and as soon as they parted promptly forgot him again.

La Fontaine was a genius and a kindly man, but one can hardly dissever absentmindedness of such a sort from shallow heartedness. Nevertheless in the case of Professor, let us say, Jones, who failed to recognize his daughter after a year's separation, the bond of affection was both strong and deep.

Mary, his only daughter, married and went abroad with her husband. Their return was a week or two before the date appointed, and owing to a series of misunderstandings and errors the professor was not informed, was not at home when they arrived and met them first at the house of a neighbor, where they had gone to inquire about him.

A reception was in progress there, and he arrived some time after them as a guest and still unaware of their return. Strolling into his friend's library, away from the crowd, he became aware, as he was inspecting the books, of some ladies in conversation on the other side of a portiere, one of whom displayed an astonishing amount of knowledge of his own particular hobby. He was surprised and delighted.

"There's a lady in the next room you must positively present me to," he said eagerly to his host, who had joined him—"a most intelligent woman! She's been talking of the prehistoric races in a surprisingly discriminating manner. Who is she?"

"A Mrs. Smith, I believe," replied the host, much amused, since he knew who the lady was. "Come—I will present you now."

They passed the curtain, and the professor, who had failed to connect the name of Mrs. Smith with his Mary, was duly introduced, for the ladies had overheard his inquiry and the reply and were disposed to keep up the joke. Peering shortsightedly through his big glasses, which, by his usual mistake, were his reading glasses when they should have been his object glasses, he did not recognize Mary when he saw her, and the father and daughter actually opened a conversation on prehistoric man and carried it on for several minutes before the strain proved too much.

Then the listeners broke down in laughter, and Mary, with a cry that she could not keep it up any longer, caught the old gentleman around the neck and kissed him.

"Bless my soul, Mrs. Smith!" he gasped, bewildered. "Why—Mary!"—Youth's Companion.

Reticence or Ignorance?

The inhabitants of Chinese villages are very ignorant of the places in their own neighborhood, according to an interview with W. J. Garnett, the third secretary of the British legation at Peking, which the Manchester Guardian prints. Mr. Garnett returned a little while ago from a journey through the provinces of Shantung and Kiangsu, and a sample of the conversation that took place when he asked the way from one village to another is below:

"Is this the way to Tsouhsein?"

"Are you going to Tsouhsein?"

"Yes. Is this the way?"

"Oh, you are going to Tsouhsein, are you? Where do you come from?"

"From Chiningchow. Please, is this the way to Tsouhsein?"

"Oh, you've come from Chiningchow, have you? Are you going into the city walls of Tsouhsein?"

Finally the native would admit that he did not know the way to Tsouhsein.

At the entrance to another village an ancient villager was asked what the name of the place was. After asking in turn who Mr. Garnett was, where he had come from, where he was going and why he wanted an inn, he considered the original question when repeated by the patient inquirer and finally closed the conversation by saying:

"How should I know? I am not a learned man."

When Children Went to War.

Among other improvements in the art of war as attained by the world in these later days is the abolition of the practice of sending children to sea, as was the case when the midshipmen of the old "oak walls" of England often were boys of less than fourteen years.

The Marquis of Dufferin and Ava in telling about the siege of Bomarsund, in the Crimean war, which he witnessed from the frigate Penelope, related this story of one of these little fellows:

"What pleased me most during the whole business," he says, "was the gallant behavior of a little midshipman, a mere child, thirteen or fourteen years of age. About the time when the fire became pretty hot I happened to come across him, and, as he seemed to be as much out of a job as myself, I touched my cap and took the liberty of observing that it was a fine day, to which he politely replied that it was.

"Encouraged by his urbanity, I ventured to ask him how long he had been at sea, to which he answered, 'I have only left my mamma six weeks, but I ain't going to cry on her majesty's quarter deck,' a remark which I think as worth recording as many a one made by more illustrious heroes. Soon after this, however, a man was killed close to him, and the little fellow fainted and was taken below."

Where Idols Are Eaten.

At certain seasons in some parts of India it is the duty of every devout person to eat a special sort of confectionery. Every confectioner in October, for instance, has a pole about six feet high at his door, and to this is nailed a great book about a foot long and thick in proportion. On one side of this is a brisk fire, with a huge earthen pan on it. Before the pan a man may be seen sitting, for nobody stands when he can sit, with a kind of wooden ladle, and with this he briskly stirs a quantity of bubbling, black looking sugar till it becomes quite tough. He then scrapes it together and puts it on a piece of board to cool a little, and then, getting up and dexterously throwing it on the large book, he begins to pull out the tough substance. He draws it out to the length of four or five feet at a time and throws it back and elongates it again, and so he manipulates it till the mass becomes as white as snow. This composition so treated is manufactured in all sorts of sacred forms—figures of little idols and gods—and is eagerly bought for consumption.—Strand Magazine.

Ink Froze on the Pen.

The winter of 1683-4 in Europe still holds its place as one of the most severe and remarkable on record. So tremendous was the cold that trees split asunder with deafening reports. The strangest sight of all was on the Thames. Here on more than a foot thickness of ice a thoroughgoing town of streets was erected. There were tailors' shops, butchers' shops, tobacconists, printers and, indeed, many other businesses all being carried on as if they had stood there for years.

Writing anywhere but near a large fire was impossible, as the ink froze in pot and on the pen, whole barrels of liquids were frozen solid and wine was sold in one pound blocks. New bread on being taken out of the oven would immediately stiffen and become solid. There were hundreds of deaths from the cold, and throughout the frost the poor suffered miserably.—Pearson's Weekly.

Little Great Men.

A Chinese who had long studied the works of Confucius, who knew the characters of 14,000 words and could read a great part of every book that came in his way once took it into his head to travel into Europe. Upon his arrival at Amsterdam his passion for letters naturally led him to a bookseller's shop, and as he could speak a little Dutch he civilly asked the bookseller for the works of the immortal Xixofou. The bookseller assured him he had never heard the book mentioned before. "Alas," cried our traveler, "to what purpose, then, has he fasted to death to gain a renown which has never traveled beyond the precincts of China?" There is scarce a village in Europe and not one university that is not thus furnished with its little great men.—Oliver Goldsmith.

First American Play.

The first play written by an American produced in this country, according to the Philadelphia Public Ledger, was the tragedy, "The Prince of Parthia," by Thomas Godfrey, which was brought out at the Southwark theater in the Quaker City in April, 1767, by Lewis Hallam's company, the first organization of players to visit Philadelphia. Godfrew was an ambitious young poet, who died at an early age. His play was above mediocrity and an important part of the volume of his works published in 1765.

A Use For His Obituary.

A well meaning and conscientious editor on being shown by the man most interested that the death of the commandant was falsely reported in his paper, apologized profusely and offered to make it all right.

"We'll print a correction at once," he said.

"Well," said the man who wasn't dead, "perhaps it would be better to let it stand. I'll show it to my friends when they want to borrow money."

Painful Etiquette.

The royal court of France used to be a great place for etiquette. Louis XIV. once caught a severe cold owing to the fact that on his arising from his bed one cold morning the lord of the chamber, whose duty it was to hand him his shirt, happened to be absent. Not one of the numerous courtiers present had the courage to transgress etiquette by handing the garment to the shivering monarch.—London Scrap Book.

Indifferent.

"I can't give you an opinion on that question," the statesman replied, "because it's a question I pay no attention to. I am indifferent to it—as indifferent as the backwoodsman's wife. That lady, you know, looked on while her husband had a fierce hand to hand tussle with a bear, and afterward she said it was 'the only fight she ever saw where she didn't care who won.'"

Going On.

A terrible noise of thumping and stamping came from Bob's room early one morning.

"Bobby, Bobby," called his mother from downstairs, "what is going on up there?"

"My shoes," replied Bob.

One Drawback.

Olive—What an improvement it will be if the time ever comes when everybody can get a seat in the street cars. Violet—Oh, I don't know. A girl would never be sure then that she was pretty.—Puck.

Some children act as if it were a constant surprise to them that their parents had the excellent taste to pick them out.—Nantucket Inquirer and Mirror.