## YOUNG FOLKS.

The Garret Circus.

"O Bessie, there's a circus here! A real lovely one, with el'phants and nirosinoses and cantalopes and everything funny! Don't you s'pose you'll take me to see it? 'Canse I want to go so much. Do, please, Bessie, dear!" "Why, Tiny, " said Sister Bassie, look-

ing up from her sewing, "I never went to a circus in my life, and I am sure mamma | or laugh ; either will do as a substitute for would not like to have you go."

"Why, 'Lisbeth Canning!" said Tiny. My mamma took me once her own self to see a 'triloquist, and he made a plg squeal right in a lady's muff when there wasn's any pig there. It was so fuuny to see the lady drop her muff and run! You know mamma always likes me to have a good time. And besides, Bessie, everybody 'most I've seen this morn ing said they should go if their mammas would let them."

"Who have you seen?" asked Bessie, smil-

"Why, I've seen Clarabel, and we were | plish it; it is not so very hard. out playing when Teddie came over and told us all about it. Won't yo please take me, Bessie?"

"I could not think of such a thing, dear," said Bessie. "A great many rough people go to such places, and I am sure I should not enjoy it."

"O 'Lisbeth !" sobbed the disappointed child. "You don't try to please me ! shouldn't s'pose you could be so cruel when I'm all the little sister you've got. I wish my mamma would come home !"

"Maybe, if you are good," said Bessie, "we will go up on the cliff and see the boats go by. How would you like that?" Tiny shook her head. "I drather go to the

circus !" she sobbed. "Would you like to have a little teasetparty, and invite Teddie and Clarabel?" ask

"Course not," said Tiny, "when they are going, and I don't s'pose I can ever be happy again s'long's I live." Bessie smiled to herself, but said nothing,

and soon the little girl put on her hat and coat, and went slowly out of the house. Bessie, looking for her half an hour later found three disconsolate looking figures in the yard, the tears running down their rosy faces - a picture of woe.

"I' most know my mamma would let me go, if she was at home," Tiny was say-"But my mamma wouldn't, let me go

said Clarabel. "And mine wouldn't, too !" sobbed out Teddie.

Bessie ran back to the house without being seen, and an hour later she returned and called out, merrily: "Children, the celebrated Professor Van Zangubar has arrived, with a fine collection of animals, and if you will come with me, you shall see them,"

The children sprang to their feet, and followed Bessie into the house and up to the big, delightful garret where they spent many rainy days. Their faces where bright with wonder and curiosity, and their troubles were instantly forgotten.

Across one end of the garret a curtain had been hung, which parted in the middle, and a queerlooking man appeared. His long, white hair hung over his shoulders, and he wore a tall, pointed hat with several plumes in it. He also wore a long cloak which nearly covered him.

"Ladies and gentlemen," he said, bowing low, "I have ze pleasure of exhibiting to you ze fine American circus. If you calls for any animal I has not got you pays no fee, and after the exhibition you eats the animals. Now will ze little ladies or gentleman call in

turn?" The children looked at each other, and then at Bessie.

"Why, we can't eat the animals," said Teddie, " 'less they are cooked."

The man laughed. "Let ze little gentleman call for one an

see," he said, bowing again.

"Please show us a baboon," said Teddie. A little round table was placed outside the curtain, and standing on it was a cracker

baboon. The children clapped their hands and shouted. Then Tiny called for an elephant, and a chocolate elephant appeared. Of course the children laughed age in until the rafters rang.

Then they called for every animal they had ever heard of, but the showman produced them from behind his curtain as fast as they called, with some funny remark about each. Most of the animals were sweet crackers, though some were made of candy. At last the professor made another bow and said, "Ladies and gentleman, ze show

is now ended, and I invites you all to eat with me, the circus." He drew wide the curtain, and there was a table in the center of which was a platter piled high with animals. A plate of sandwiches was on one side, and a large sponge cake on the other, and a fruit-dish filled with oranges and

apples. Then the showman suddenly removed his hat and wig, and Leslie-Tiny's big brother -stood before them. How the children laughed then, and rushed upon him; he dodged behind the big chimneys but was finally captured, and they all sat down to

Bessie and Leslie told funny stories, and they had a merry time until sun-down, when Clarabel and Teddie started for home, declaring they had had a beautiful time.

When Tiny went to bed she put her arms around Bessie's neck and whispered, "You are the goodest and kindest and sweetest Bessie in the whole world, and I love you better'n ever ; and I'll try never to be cross again so long's I live."

# What Girls Can Do.

Instructions are so freely given, nowadays, that one is reminded of a story of a little boy who went to visit his grandmother, and was told that he must not do this, that, and the other thing, until he plaintively asked what he might do, "Sit still with folded hands, and be a goo i boy." was the answer. Not a pleasant prospect, surely.

Now the girl of the period is in much the same position as the little boy. She has been told so many things that she is not to do, that, perhaps, for a change, it would be well to mention a few that she may do. As a beginning she can put her hairpins in so that people will not be continually reminding her that they are coming out. She can which always sounds like a forced courtesy with all grace cut from it. She can try to tell things as they really happen, and, if the aforesaid things happen to be scandal, she | No woman ever gave such advice,

can not only refrain from repeating them, but she can forget them. She can cultivate the art of listening, especially to those who like to talk. She will then be spoken of as one of the most entertaining of her ser. She can sign her name in full, and she will soon discover that " Derothy Vernon," possesses a stateliness that "Dottie V." would never dream of. She can take care of her health, which, when once lost, leaves no pleasure in life either for her or for those who care for her. She can smile the inane habit of giggling. It is necessary to hear an old woman giggle before one can fully realize what an abominable habit it is, and how hard to get rid of. She can discuss general, rather than personal, topics. In the discussion of the former the conversation does not become so one-sided, the listener being allowed an opinion beyond thinking the talker a bore. And, lastly, she can be " such a nice girl' if she will act affirma tively in regard to the pleasant parts of life, and negatively when its unpleasant sides are concerned. If she tries she can accom-

### The Greatest of the Trusts.

By far the greatest of the many huge combines in the United States is the Standard Oil Trust. Last year its profits were \$26, 000,000; this year they will be larger still. It is called the "great octopus," because not content with its virtual monopoly of the oil trade of the country, it has taken into its grasp numerous other industries, and is still reaching for more. In a sketch of the history of this gigantic concern in a recent issue of the Chicago "Tribune" many interesting facts are stated.

The Standard Oil Trust was developed out of the business of the Clark brothers, two young Englishmen, sons of a Wiltshire agricultural labourer, who in 1863 had a very small refinery in Cleveland. Their bookkeeper was John D. Rockafeller, a young for the Panama Canal works, and who is the man of twenty three who was in receipt of a salary of \$25 a month. He had been left \$3,000 by his father, and one day he suggested to the Clarks that he should put this money into the business and that the firm should extend its operations. He was shrewd enough to see the possibilities of the oil trade, which was then in its infancy. His suggestion was adopted, and the Clark refinery began to increase its cutput, which in 1865 had reached 150 barrels a day. But Rockafeller saw that still more could be done with increased capital, and in 1870 a company was organized under the style of the Standard Oil Company. Its nominal capital was \$8,500,000, but the real figure was much smaller, the plants of the different refineries which went into the company being thrown in at fancy figures, and representing how the gigantic operation should be carried nearly the whole of the capital. From 1870 to 1883 the policy of the company, under Rockafeller's direction, was aggressive and cunning. The market was constantly manipulated, and some way of taking advantage of the forced changes in prices was never wanting. Rival concerns were either bought or crushed, and pretty soon the Standard had practical control of the trade. In 1883 changes took place in the personnel of the company, the Clarks and several others who had made comfortable fortunes going out. Among those who remained the leaders were the Rockafellers, H. M. Flagler, S. V. Harkness, O. H. Payne, and H. A. Hutchens. A more conservative policy was then adopted, the manipulation of prices being abandoned, but the old game of wiping out opposition was continued. In most cases this was done by ceased business. For instance, one Pittsburg firm, which was becoming dangerous, was paid \$50,000 a year for ten years. At the end of that period it commenced operations again, but two years ago its whole business was bought outright by the Standard for \$1.500,000. The results of this policy have been the acquirement by the latter of a virtual monopoly of the entire oil trade of the United States, and the consequent enormous growth of the fortunes of its members. In 1880 the capital of the company was \$10,000,000, in 1885 it was \$72,000,000, on which amount its least deep water. This line starts from the way and no footpath, except for persons profits last year were nearly thirty per cent. It pays a dividend of twelve per cent. and reserves the balance of its profits for use. Its stock is issued in Standard Trust certifi cates, the last sale of which was at 170 making them worth \$153,000,000. Hundreds of refineries are operated by the trust, the leading members of which also control the white lead, cottonseed oil, and other trusts. John D. Rockafeller, who is head of the executive board of the Standard, is

### \$20,000,000 or over. Mourning in all Lands.

said to be worth \$150,000,000. His brotle

in different countries :

through Europe.

worn by French kings. Yellow-The sere and yellow leaf. Egypt impossible of execution. and Burmah. In Brittany widow's caps

among the peasants are yellow. Mourning for cardinals and kings of beton, calcareous stones, and Portland ce-France. Violet color for mourning in Tur-

White-Emblem of "white-handed hope."

Deep Blue-Bokhara mourning.

Pale Brown-The withered leaves. Persia. Grayish Brown-Earth. Ethiopia and Abyssinia.

# The Silent Watches.

Miss Hauteur-You don't wind your watch at night, but let it run down? Why, I never heard of such a thing ! Bagley-Indeed? Then you have never it calculated at 150,000 tons for the deepest been told about the silent watches of the phars, which will give a pressure of 9 kilo-

# A More Appropriate Name.

Miss Backnumber-My little dog Hero was awfully scratched by a cat to-day, so I think I shall change his name. Miss Sere-What will you call him now ? Miss Backnumber-Claude!

An Unnecessary Correction. stating that Mrs. Guy was not the author of the roo of the lower air chamber. This structure. its"Din't" advice to those about to marry.

# THE KING OF BRIDGES.

THE OCEAN ITSELF TO BE SPANNED FROM FRANCE TO ENGLAND.

The Cost Placed at \$172,000,000-118 Plers to be Built in Ten Years-The Ppans to 00 Feet Above High Water.

At the time of his recent visit to the Paris Exhibition, Mr. Gladstone is reported to have said that the peace of the world would be assured by a tunnel or a bridge across the English Channel. This remark was doubtless suggested by the sight of the plans for the projected bridge which are exhibited in the upper gallery of the machinery palace at the Champ de Mars.

The idea of this gigantic undertaking is not new; it has been talked about by engineers for the last thirty years, but it has recently been revived because the hostility of the English people to the project of a tunnel between the two countries seems so strong that there is no hope of overcoming it, for the present at least. An international company, under the presidency of M. Leon Say, has been the last to study the tunnel question.

Five years ago the Channel Bridge and Railway Company was organized at London and Paris with a capital of £200,000. The main object of this company was to make the necessary studies for the proposed bridge. Its President is M. de Gay du Palland, and the Board of Directors consists of the Comte de Chandordy, formerly French Ambassador; the Hon. Philip Stanhope, member of the House of Commons; M Euverte, engineer, and M. de Gay du Palland. The company has consulted the rost eminent technical authorities upon the

POSSIBILITY OF THE OPERATION and to-day it presents a complete project, which has been prepared by M. Hersent, who has been one of the great contractors inventor of the powerful drags used there- | dollars. Messrs. Schneider & Co. of the celebrated Creusot works, and the two distinguished English engineers, John Fowler and Ber ja- 118 piles; fourteen at five metres' depth and

min Baker. The plans shown at the Exhibition consist of two large drawings giving the complete development of the bridge and the geological cut of the ground upon which the masonry piles are to be constructed, and also a set of detailed drawings showing the construction of the pillars, columns, and the bridge proper. By a glance at these plans it is easy to get a general idea of the enterprise. At the same time two French constructors have printed a work containing complete plans and calculations and indicating in the most precise fashion their idea of out as well as the ways and means to be masts of the largest vessels to pass under. employed. The title of this work is the "Pont sur la Manche. Preliminary projects by Messrs. Schneider & Co. of the Creusot Works, and M. Hersent, contractor for public works, ex President of the Society of Civil Engineers; Sir John Fowler and Benjamin Baker, chief engineers of the Forth Bridge." Besides the ninety-seven pages of text, in 8vo, there are twenty-two sectional and profile drawings. Some large photographs have also been made of the entire development of the bridge by M.

Armengaud. In all railway construction engineers are obliged to consider the infrastructure and the superstructure. In the present instance it is not simply a question of establishing railings and trenches and laying tracks upon a more or less favorable ground; the propensioning rivals on condition that they blem consists of sinking huge masonry piles in the water and of launching metallic spans 506 metres long from one pile to another. It may be replied that work of similar magni-Forth, near Edinburgh, and that another bridge is being constructed in Australia, the foundations of which go down to a depth of the interest in the studies that have just been finished by such competent authorities as Messrs. Hersent and Schneider. The position of the bridge is naturally in French coast at a point called Cran and (Œufs near Cape Grisnez, and reaches the English coast at Folkestone after passing over the Varne and Colbart banks. The

distance is about twenty-four miles. THE LINE CHOSEN by the engineers is not quite straight, but deviates toward the centre at two points in order to avoid deep water and take advantage of the foundations offered by the two banks above mentioned, which are covered only by seven or eight metres of water. William and H. M. Fingler are rated as The greatest difficulties so far as foundations \$40,000 000 each, and three others at are concerned, are found between the Colbart bank and the French coast, where in certain parts the sea bottom is at a depth of fifty. five metres, or 180 feet. Nevertheless, The following are the accepted reasons for considering the marvels that have been the selection of various colors for mourning accomplished in engineeering and in submarine masonry in the ports of Toulon, Black-Expresses privation of light. Worn | Antwerp, and Cherbourg, in the bridges of Brooklyn and the Forth and at the Paris Scarlet-Mourning color occasionally Exhibition in machinery gallery and the Eiffel Tower, the project does not seem

The bridge is composed, of course, of supports and of a roadway resting thereon. The Purple and Violet-To express royalty. pillars are to be of masonry composed of ment, resting on the bea of the channel on the white or blue chalk which is found to be sufficiently resisting to bear a weight of 10 to 12 kilogrammes per square centimetre. These pillars, where the depth is 55 metres, will have at their base a superficies of 1 604 equare metres. The masonry will be strengthened at intervals by layers of granite, and above the water level the masonry will be entirely of granite. These pillars will be 25 metres long, and their breadth will vary with the breadth of the system of metallic columns which will rest upon them. As to the weight that will rest on the ground, it grammes per square centimetre.

The construction of these pillars will be an enormous affair, necessitating the establishment of special ports at Folkestone in Eng. land and Ambleteuse in France, in which the metallic caissons can be built and floated. The bottom of the caisson will be a chamber four metres high, which will be built in a would thus find itself before a precipice fifty the metal walls will be continued upward to of all the resources of military art. a height of 12 or 15 metres above the base. Meanwhile the caisson will be ballasted with at \$172,000,000-\$76 000,000 for the masonry Cumso-1 see that "Punch" prints a note a layer of beton 2 or 21 metres thick laid on piles, and \$96,000,000 for the metallic superbailast will give the calsson stability and Fangle-The correction was unnecessary. enable to be towed by steamers to the spot | Channel would certainly increase the number where

THE PILIAR IS TO BE SUNK

and fixed. Here by the methods of compressed air and other known systems already tried at Brest'and Cherbourg the bed of the Channel will have been cleared of rubbish and loose rocks so that the caisson may rest on a sold and level foundation. Furthermore, if the use of compressed air presented be From 340 to 1,600 Feet Long, and to be difficulties at the great depth of 55 metres, the engineers propose to attack the soil with rotary instruments, the nature of the ground lending itself readily to such a treatment. The masonry in the caisson, it may be added, would not be soild; wells would be reserved both in order to lighten the weight on the ground and to permit of the examination of the work at all times.

> The fixing of these enormous caissons in their definitive positions will be a very delicate operation. The caissons will, as we have seen, be towed to the required spot, and then surrounded by pontoons fitted with powerful cranes and winches. These pontoons themselves would form a protecting belt against the violence of the waves; the pontoons again would be surrounded by open-work rafts that would cover a considerable surface, and, finally, the choppy movement of the water would be neutralized by the use of oil. It is thus probable that a stretch of calm water would be obtained around the caissons so that work could be carried on without interruption. This was the case in the port of Toulon, where these metallic caissons were used, and where more than 100,000 tons of beton floated in a caisson for several months. pillar will take a long time to bulld. M. Hersent estimates the cubic total of masonry in the 118 piles at nearly four million metres and the weight of iron in the caissons at 76,309,800 kilogrammes. Counting 250 working days a year, and working simultaneously on eight caissons at a time, these pillars of masonry could be

#### BUILT IN TEN YEARS

at a cost of about seventy-six millions of

In the project that has been submitted by the engineers of the Crausot works there are eighty-six at the height of the sea level, varying from ten to forty five metres. The supporting piles in masonry and stone, are to be built up to a height of twenty metres above the highest tides and twenty-seven metres above the lowest water level. The dimensions of these piles at the top are 45x20 metres. Upon these solid supports will first be placed cylindrical metallic piles, whose height will vary from forty to fortytwo metres and upon which will rest the principal girders of the platform. There will consequently be from the level of the sea to the floor of the bridge a clear space of sixty metres, which is sufficient to allow the

The placing of the metalic platform upon vertical cylindrical piles leaves the whole width of a span clear, which is not the case in the new bridge over the Firth. There the height above the water level is forty five metres; but the height really exists only for about a third of the opening. Toward the two extremities it diminishes progressively, and is scarcely fifteen metres near the masonry pile. The spans, or openings between the masonry piles, will not be of equal length. It is proposed to have three types of alternate spans, 300 and 500 metres, 200 and 350 metres, and 100 and 250 metres, the longest ones corresponding to

the shoals and the approaches to the shore. The width of the bridge is variable; the greatest distance between the axes of the principal girders is twenty-five metres, this space having seemed necessary to assure stability against the most violent gales. But the width of the platform upon which | dis bressid instinct." the rails rest is only eight metres; this will tude has recently been accomplished on the allow of a double track of the ordinary width 31 feet between the rails, which will be set in grooves to prevent all possibility of accident. The level of the tracks is fifty-five metres. This is nowise diminishes seventy-two feet above low water mark. This height might have been reduced by placing the tracks on the lower part of the bridge; but in this case it would have been necessary to make the cross beams too large dicated by the line of short distances and and too heavy. There will be no carriageemployed on the bridge.

The metal to be used for the superstruc ture is steel, the numerous applications of it that have already been made leaving no doubt that about fifty per cent, can be saved in the weight over that of iron, while the price of steel has become almost the same, notwithstanding its superior qualities of resistance and wear. Lights will be placed at the right of the piles to indicate

THE OBSTACLE TO BE AVOIDED and at the same time to indicate the distance from the English or French coast or from the two rocky banks, the Varne and the

The spans, as we see from the general view of the bridge, are composed of lengths of metallicgirders and ties of different dimen. sions and prefile in interval stretches. For instance, the widest span, of 300 metres and 500 metres; the interval of 300 metres between two pillars is covered by one single horizontal span of metal, which will project into space on each side beyond each pillar to a distance of 1871 metres; then the interval of 500 metres will be bridged over by twice this length of 1871 metres, and the gap between these two extremities will be filled up by a small independent span of 125 metres. The construction of the ironwork is shown.

The bridge will be fitted together in sections in the yards at Ambleteuse and Folkestone. The largest spans, when fitted together, will weigh 958 tons, and will be floated out into position on three pontoons each 22 by 70 metres and with a draught of 61 metres. These vast sections will be hoisted on to the pilirs by means of hydraulic presses placed at the base of the pillars them. selves, or else by means of movable pillars, platforms, and caissons, in which case the long spans would be mounted piece by piece in smaller lengths.

The fear of an invasion by the French had not been forgotten by the authors of the projected bridge. They propose to make the first two spans at each extremity movable, so that in case of need the railway communications could be immediately interrupted. Tae French army that should start over the

bridge TO INVADE ENGLAND

dock and then floated into the port, where metres high and very difficult to cross in spite The cost of this gigantic work is estimated

The establishment of a bridge across the of visitors between France and England, but

it is upon the freight traffic that the promoters of the enterprize count for the interest on their capital engaged in this great enterprize. Statistics show that England's trade with France, Holland, Belgium, and Germany is something over fourteen millions of tons, divided into four categories. Leaving out of account the heavy merchandise which, owing to its relatively low value, would continue to be sent in vessels, there remains about 6,500,000 tons that would probably be transported every year over the railway. The promoters of the bridge say 5,000,000 tons and 1,000,000 of travellers of the 2 000,-000 that annually cross the Channel. Upon this basis they calculate that the enterprize will be remunerative.

There are other objections than those urged by the English military authorities. The most important one is the danger of the piles for the sailing vessels in the Channel. It is possible that some craft might be driven against the enormous masonry supports in spite of all imaginable precautions, such as electric lights and steam fog horns. Still, spans of 500 and 300 metres are wide enough to obviate the fear of numerous disasters. It is also to be feared that the maritime powers may claim that the Channel is an international water highway, and that the nations bordering on its shores have no right to undertake any work that will in the least hinder navigation. In this case it will be the work of the diplomatists to try and convince them and obtain their adhesion.

#### Another Joggins Raft.

MONTREAL, Nov. 27 .- Mr. James D.

Leary, the millionaire contractor of New York, and well known as the builder of the celebrated Joggins raft, is in Montreal in connection with s voral important Canadian enterprises he has on hand. One of the most important of his schemes is the building of another raft, which he hopes to launch next spring. Mr. Leary gives the following interesting particulars of the proposed raft. It will be built on the same pattern as the others, but will be bigger in every way, and will also be much easier to handle. It will be 100 feet longer than the last one, having a total length of 750 feet and a width of 65 feet. It will be 45 feet deep, and will draw about 25 or 26 feet of water. It will consist of from 27,000 to 28,000 sticks and will weigh about 11,000 tons. It will have six masts, riggwith fore and aft sails. One of the greatest improvements over the former raft will be in the steam steering gear and steam capstan for the handling of the anchors and chains. The raft will be built entirely of piling and spars, and will have about one million feet of hardwood for a core. Mr. Leary also states that he is building an immense raft at Puget Sound, which will weigh about 13,000 tons and will be taken to San Francisco. He has strong hopes that the difficulties experienced in the last experiment will not be encountered with the next raft. Mr. Leary has just come from St. John, N. B., where he spent some time in making preparations for the cutting of the necessary timber on his twothousand-acre farm at Cumberland. While in St John he also evinced great interest in the proposed dry dock. He believes the ocheme to be entirely feasible.

### Painful Enough.

Mistress-"I'm sorry, Aunt Becky, but I shall have to ask you to take more pains when rubbing these table-cloths."

Aunt Becky .- "La sakes, Missis! Don' t'ink I's got room fer anuder pain in dis yer ol' body. 'N' I p'tic'ly remember dat w'en I wash dem table-clo's de misery was 'a' rampagin' all ober me. I's plum' up full ob 'em

# With a Moral.

A heavy rain was falling and the street car was crowded. A sweet young girl entered and glanced timidly around. "Take my seat, miss," exclaimed the

hollow-eyed consumptive near the door secing that the burly, beef-fed man sitting next to him did not offer to rise. "Thank you, sir," she replied.

And that sweet young girl with dripping gossamer sat down by the side of the burly individual and drenched him with cold rain water till he could feel his spinal column growing shorter, while the hollow-eyed consumptive hung on to a strap, dry and happy. Politeness is its own reward.

# Pure Labor.

Young Man-Does your sister play the piano, Bobby? Bobby-Play it! No; but she works it about seven hours a day.

# An Autumnal Proposal.

He (as they stand on the balcony). "It is very bright within and very dreary without, is it not?" She. "Without what?"

He (Inspired). "You."

He Spoke It. Jones-Can you speak French? Brown-Yes. Jones-Speak it. Brown-French. Jones-Yes, French. Brown-Well, I spoke it-French. Do you want me to sing it?

It Was a Straight Tip. "Weep not, my pretty dears ; you will

not be long separated." said the fox to the young chickens, as he carried off the old hen and in fifteen minutes he came back for the young chickens. Moral. Always keep your

It Was a Pair. Mr. H. : Congratulations, old fellow. Boy or girl? Mr.B. (sorrowfally. Both .- Life

# Two Consultations.

Customer. "Is Rubnose's Rheumatic Remedy good for acute rheumatism the result of a cold ? "

Drug Clerk. "I-I don't know. I'll see." (Whispers to proprietor) "Have we Rubnose's Rheumatic Remedy?"

Proprietor. "No ; only Builfinche's." Clerk (to customer). " No; not half so good as Bullfinche's."

I is reported that Emperor William intends to build a new palace in Barlin.