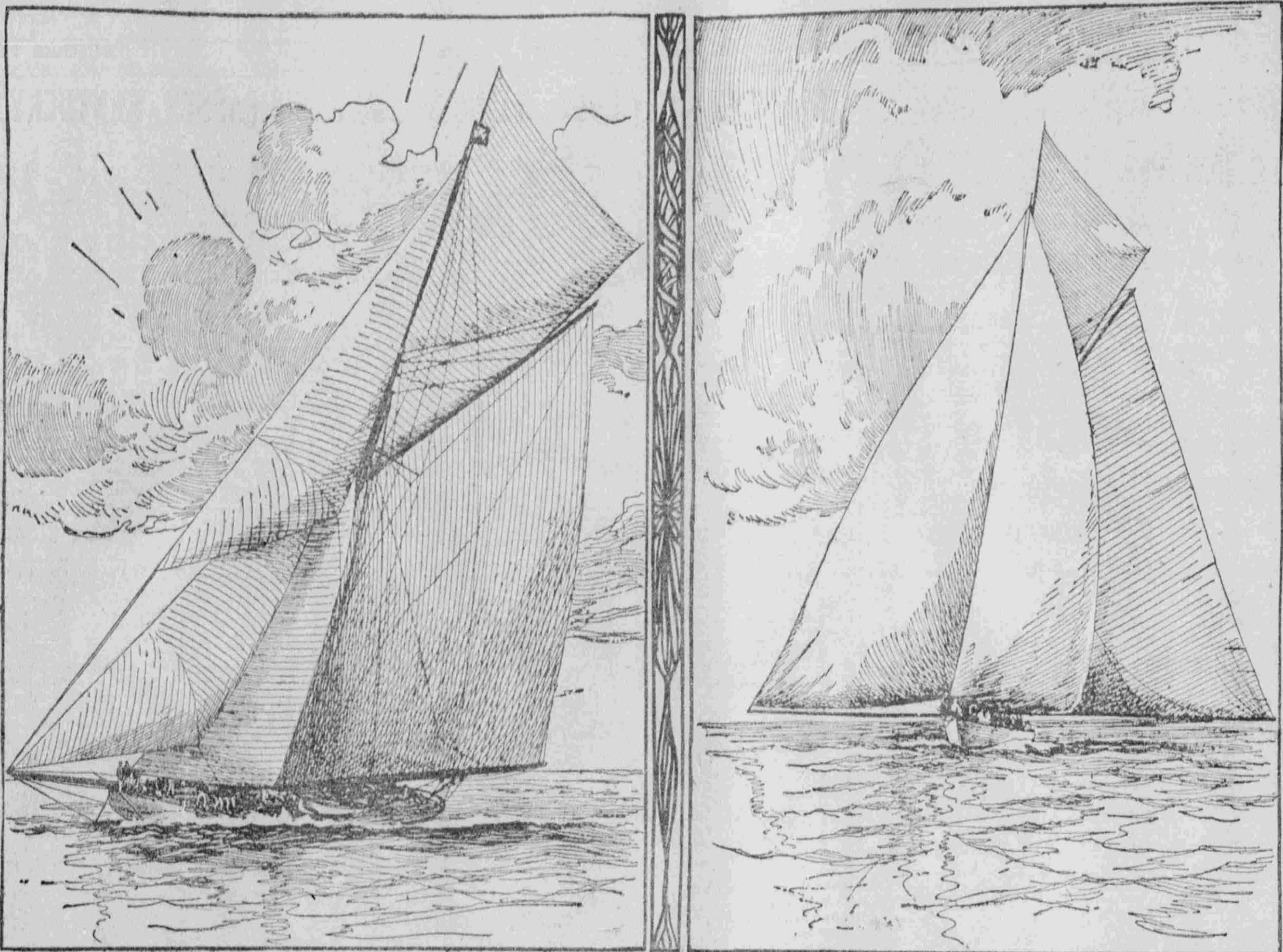


SIR THOMAS LIPTON'S SHAMROCK II. AND THE DEFENDER OF THE AMERICA'S CUP.

PRIVILEGES OF THE PEERAGE.



THE YACHTS ARE UNDER FULL SAIL, THE FOREIGN BOAT HAULED CLOSE ON THE WIND AND THE AMERICAN VESSEL RUNNING BEFORE IT.

A RIVAL OF THE PANAMA ROUTE—THE TEHUANTEPEC RAILROAD.

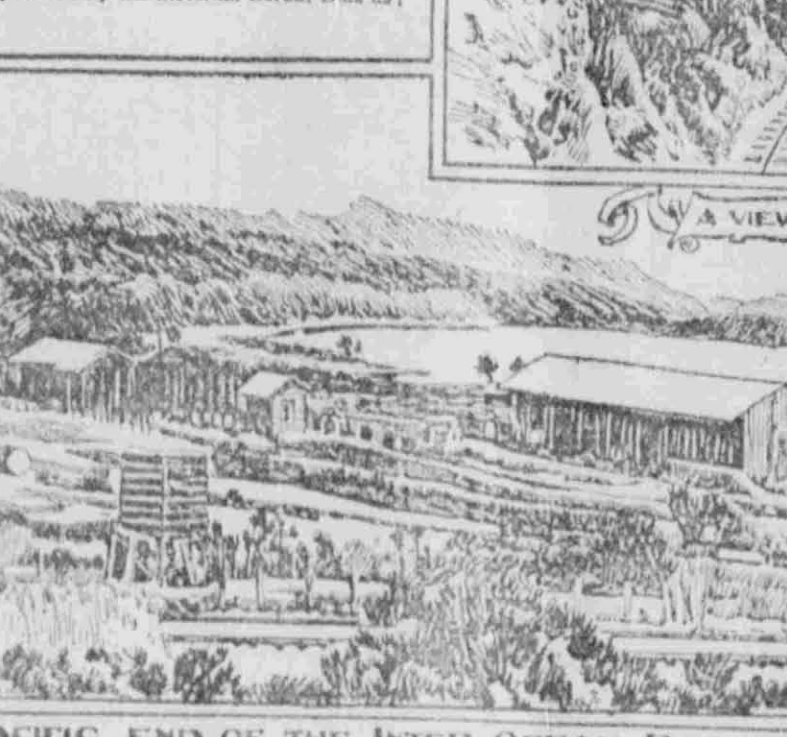
MEXICO has made great advances in the way of railroad building in late years, mainly through the aid of foreign capital, and one of the most important enterprises recently consummated is that of the Tehuantepec railway, over the line of which I have lately traveled. This railroad across the isthmus of Tehuantepec has more than a local importance, owing to its being an interoceanic route between the Atlantic and Pacific, as is probably well known.

In looking about for a feasible route across North America from east to west, either for canal or railroad, that afforded by the contraction of the continent at the isthmus of Tehuantepec has appealed to engineers more forcibly perhaps than any other because of its many natural advantages. Panama is narrower, to be sure, but is farther away from the great ports of commerce on both oceans which it is desirable to connect. An interoceanic route at Tehuantepec offers a great saving of distance, as, for instance, between New York and San Francisco (via Cape Horn) of 14,900 miles, via Panama, 12,700 miles; between Liverpool and San Francisco (via Cape of Good Hope), 8,500 miles; New York and Yokohama (via Cape Horn), 10,000 miles; by way of Suez, 5,000, and 1,100 via Panama; while Manila is 1,515 miles nearer New York by way of Tehuantepec than by Suez and 1,640 nearer than via Panama.

The passage through the mountain backbone of the continent are lower at Panama than at Tehuantepec, but at the latter place the mountains are depressed to a level of less than 700 feet, which is lower than at any other point between Panama and the northern boundary of Mexico. Advantage has been taken of this fact to build the interoceanic railway from the port of Salina Cruz on the Pacific to Coatzacoalcos on the gulf of Mexico. This undertaking was commenced, in fact, twenty years ago and was declared completed in 1886 after more than four years of work and an expenditure of some \$10,000,000; but, owing to defective construction and lack of funds, the railway has lain quiescent until recently. The reopening of the railway, which is just now consummated, amounts, in fact, to a new enterprise, for the firm which has entered into cooperation with the Mexican government to run it has replaced more than 400 wooden bridges with structures of iron and masonry and provided adequate terminal facilities at the harbors on the Pacific and the Atlantic.

While naturally good harbors, both Coatzacoalcos and Salina Cruz were shallow, and the most costly work after the rebuilding of the line was that of deepening the water at these ports. The Coatzacoalcos, like many other rivers on the gulf, was obstructed by a sand bar at the mouth, which had to be removed before large ships could come up to the wharves. In order to do this a system of jetties has been installed similar to those so effectively used in the improvement of the lower Mississippi by the late Captain Eads. The Coatzacoalcos river is typically

tropical in character, subject to floods and difficult to bring within bounds, but it is intended to secure it out by means of the jetties and make the entrance deep enough for the largest sailing steamers to reach points thirty miles from its mouth. At Salina Cruz also there will be great improvement. Docks have been projected to cover fifty acres, with quays 4,000 feet long, and a breakwater of 1,000 feet, constructed of blocks of granite weighing forty tons each. Incidentally, an entire new town is being built at Salina Cruz, with wide streets and a modern drainage system, which it is hoped will prove an object lesson to the Mexicans as to municipal buildings and improvements. Steamship lines will be established between the two ports and other points. But the great object of the railway will be not only to afford means for the transshipment of cargoes from one coast to the other, but to promote the development of the country through which it runs. The soil is fertile, the climate tropical, and both are well adapted to the growing of sugar cane and coffee, particularly the latter, as well as cacao and all the rare productions of the tropics. The home of na-



PACIFIC END OF THE INTER-OCEANIC RAILWAY

ture coffee is in the hills, where the altitude exceeds 1,000 feet and the temperature varies but little throughout the year. This region is fairly healthful, abounds in birds of brightest plumage and has been the abode of semi-civilized Indians for many centuries. It was here that Cortez, the conqueror of Mexico, discovered the Indian princess Malinche, who was of greater service in effecting the conquest of the Aztec kingdom than his army. In this connection it might be interesting to diverge a little from the main track and take note of the romantic character of the Spanish explorations at the time Cortez made his invasion of Mexico. The isthmus of Tehuantepec

being very comely for a redskin, with the air and bearing of a princess royal, as she was. Readers of history will recall that the Spanish army fought its way up from the coast at Vera Cruz to the Mexican tableland and encountered Montezuma's army in the famous valley of Mexico. After many months of negotiation, succeeded by some of the fiercest fighting that ever took place in America, the City of Mexico was taken, Montezuma slain and the country brought under subjection to the Spaniards. Many months after this Cortez undertook another expedition for the conquest of Guatemala, traveling down the axis of the tableland from the valley of Mexico, through the great pro-

vince of Oaxaca, finally reaching Tabasco, somewhere in the section at present crossed by the interoceanic railroad. He had with him as a hostage Montezuma's successor, Guatemotzin, the ruler who had made such a determined resistance after his predecessor was killed. Becoming suspicious of him, Cortez ordered him burned at the stake, and from this the historians say, dated all his calamities. The province through which the interoceanic road runs, it will

be said, his descendants hold today and through which the railroad runs. Things have changed somewhat since the cruel conqueror of Mexico subdued the natives of this region and established himself as lord and ruler over all Mexico three centuries and three-quarters ago. Cortez himself could have had no inkling of railroads or ship railways and perhaps never dreamed of interoceanic canals, but he wrote to the Spanish court at that time that if com-

munication could be established here between the two oceans it would "render the king of Spain master of so many kingdoms that he might call himself the lord of the world." Later on, after Mexico had grown to be of importance and was known as New Spain, the richly freighted galleons from the Philippines came to Acapulco on the Pacific coast, where their valuable cargoes of silks and gold and spices were transported on muleback across the country to Vera Cruz and the Atlantic. This method of transshipment was costly, both in money and human lives, so it is no wonder that when the Tehuantepec route was discovered it

was thought that the great desideratum had been found. The United States government endeavored to obtain a right of way for a ship canal across Tehuantepec as long ago as 1847 and had surveys made, but without any results except to make its advantages well known. The great undertaking prior to the last was that of the late Captain James B. Eads, the famous engineer, who proposed building a ship railway across the isthmus and made the preliminary surveys in 1873. This novel project was to be a six-railed road 144 miles long, without curves, and was to cost, including vast lifting docks, harbors, machinery, stations, shops, engines and all equipments, not less than \$20,000,000. Half a million dollars was expended in surveys, etc., but the scheme was never consummated, though had the genius that conceived it lived till the present time his energy and resource might have carried it through. As it is, it is present all cargoes of vessels destined for interoceanic transit must be transhipped either at Salina Cruz or Coatzacoalcos. Being prepared for the heaviest traffic, Mexico now makes a bid for its transportation, for which it is said to have facilities on this railroad to the extent of 2,600,000 tons a year.

JAMES L. WELLSMAN.
Puebla, Mexico.

DEAF MUTE FIGURES.
Seven out of every 10,000 inhabitants of the United States are deaf and dumb. The affliction is much less common among the negroes than among the whites.

ANCIENT OIL SPRING.
In Zante, one of the Ionian islands, there is a petroleum spring which has been known for nearly 3,000 years. It is mentioned by Herodotus.

Roamanian army, died recently. At Plevna he won high distinction, taking a redoubt by storm at the head of his battalion and capturing a Turkish flag. He was also known in Roamanian literature.

Foremost among hereditary offices in England is that of earl marshal, held by the Duke of Norfolk. Among his duties is the publication of all royal proclamations concerning the coronation, as well as making all arrangements for the same. As Earl of Arundel, the same nobleman is chief butler, for which the fee is a golden basin and ewer.

The Marquis of Exeter is the hereditary grand almoner of England. He has to collect certain moneys and distribute the same at the coronation from a silver dish, which he claims as his perquisite.

To the archbishop of Canterbury falls the right of crowning the sovereign, to his grace of York that of crowning the queen consort, while the bishops of Durham and Bath and Wells support the sovereign in the coronation procession on the right and left hand respectively.

During the procession the barons of the Cinque ports are privileged to carry above the sovereign a canopy of cloth of gold or purple silk, while to the lord of the manor of Worktop, Nottinghamshire, belongs the service of finding a glove for the sovereign's right hand and of supporting the right arm, which holds the scepter.

The royal sandal bearer is the Earl of Rothes, and when some time since the late queen visited the Tay bridge the Countess of Rothes claimed this privilege and presented her with a pair of slippers.

It is the prerogative of the representatives of the Spencer to be present at royal christenings, provided his coat be adorned with gold buttons of a prescribed weight. The story goes that on one occasion the then Earl Spencer, against the wish of his sovereign, refused to forego his right, but was finally foiled by the resource of the lord chancellor, who insisted that his gold buttons should be weighed, when one was found to be slightly below the proper standard. Such being the case, the earl, of course, could no longer assert his privilege, so was forced to retire discomfited.

The reason why Baron Kinsale of Ireland possesses the privilege of remaining covered in his sovereign's presence is as follows: In the reign of John a dispute arose between him and Philip Augustus of France about the title to the duchy of Normandy, and to save unnecessary bloodshed it was agreed to refer the matter to two champions, who should decide it by single combat.

John de Courcy, earl of Ulster, was the champion of England, and when he appeared in the lists his scientific preparation so terrified the French champion that the latter, settling upon his horse, broke from the lists and never returned. In this way the matter was settled without a blow. For this service, in addition to a very large money grant, he and his successors, among whom is the present Lord Kinsale, were endowed after the manner of knights with the right of precedence to be covered in the royal presence. Lord Forester likewise possesses the same privilege.

The Percys stand alone in possessing the right of interment in Westminster abbey and in having the great west door open to admit the passage of the coffin. They lie buried in the St. Nicholas chapel, near the tomb of the Duchess of Somerset, widow of the Protector.

NOVELISTS AND THEIR PLOTS.

Charles Dickens once said, "Every human being knows more story than the world wants to hear if the raconteur can tell it intelligently." That Balzac, Thackeray, Dickens and every other great novelist had his first attempt rejected because they were the work of a novice shows that the art of novel writing has to be learned, and that a painter has to be taught the technique of his profession.

The first thing to do is to begin your story at the end. You must decide before writing the first chapter of your novel how the book is going to finish—whether the heroine is going to marry the hero or whether she is going to "pass out into the cold, dark night, leaving the door behind her"—so that you will be able to make the whole story lead irresistibly to the climax. Otherwise it will be disconnected and not grip the reader's interest.

Having decided, we will say, that in "chapter the last" you wish to make the heroine marry the hero after both have passed through hairbreadth escapes and had their love tested and tried by the machinations of the villain and his accomplices, you must decide on the means of torture by which you are going to try your characters' affections and characters. If you yourself have not been thrown into prison, marooned on a desert island, chased by bloodhounds, tried for murder or passed through any like ordeals, you must get some of your fellow beings to tell you their stories.

Mr. Thomas Hardy, when traveling by train or bus, wrenches their life stories from his fellow passengers by means of their faces. Guy de Maupassant, the French novelist, used to study the faces of some six or seven people till he had by sheer force of imagination woven a story round each.

He then brought the stories together and by interweaving them built up his novel. M. Zola, on the other hand, relies greatly on the newspapers. And perhaps this is the favorite means of plot among authors.

In the up to date novel, which is the only kind marketable, there are practically only four characters—the hero, heroine, villain and another—the remaining persons in the book being simply brought on either to talk or help them in their adventures. Therefore the number of your characters must depend on the number and nature of your heroine's and hero's adventures.

Alexandre Dumas in "Monte-Christo" and Charles Dickens in most of his longer works employed a great number of minor characters. In many cases using as many as 20 and 40. They did this because they travel from country to country in their stories and so have to bring in fresh characters to give local color and because the doling and adventures they recount vary so greatly that many have to have special puppets to manage them.

MEN AND THINGS.

Labor in the south is in great demand, and the negroes are better paid than they have ever been in their lives before.

Lord Charles Bessford, who is about to resign his naval position to lead one branch of the opposition in English politics, has been in the navy since he was 15 and has worked himself up

through sheer merit, although he is by birth the fourth marquis of Waterford.

Wine growers in France now send sample bottles of wine by parcel post to individuals.

The eastern Canadian searacer from the bay of Fundy to the strait of Belle Isle covers a distance of 5,000 miles, and British Columbia, with its multi-

tude of bays and mountainous terrain, has a seacoast of 7,136 miles and a salt water lake area, not including minor indentations, of 1,500 square miles.

A recent rain in southern California increased the Los Angeles valley mustard crop from three sacks an acre to 20 sacks.

There has been discovered in China a curious picture, evidently of great antiquity, which is supposed to represent