## Big Schemes of Upper Nile River Improvement Which Cost Millions

enes of The lies. - I want to tell

sets which the English are consafering as to the upper Nile. That mighty stroom has now its whole course through British beritory. it rises in Laws Victoria, in the British province of Uganda, and flows firmusts hat province into the Angle-Egyptian Summ. It winds its way through the Sudan, drawersing the old land of Nuble, and then then on Jawn through Exypt. which is grantically a dependency of Great Britain, of the Mediterranean sea. From its searce to its mouth it flows through about thirty Segrees of Latitude, and its course has a thength of more than 4,000 miles. The British control and only the main stream, but most of its tribitizates, and they ewe the great lakes of Victoria and Albert Nyanga, as far as the Mile outlets are concerned. The only ather nation which has anything to do with the stream is the Abynemian. n whose highlands the Blue Nile and Atbarn have their sauress. The control of these two more is, mureover, so regulated by treaties that they cannot be touched except by British consent, so that the Nile nay he called an English river and may be looked toon as in the hands of one of the rathest, must able and most successful of the developing nations of the gione.

I have already told you of the improve ments that the Bertish have made as to the Egyptian course of this great waterway. For a month and more I have been traveling along that part of it. I have visited me great canals of the data, and also the Barrages at Cairo and Assist. I have written you of the huge dam at Assounce, which has been built at a cost of \$2,000,000, to give the farms of Egypt a

Big Projects of the Upper Nile. The projects which the British are now considering are more important than anyhing they have done in the past, and they will rank as the most during of the engineering plans of the century. If carried out they will cost us much as it did to build the Suez canal, but they will assure he greater Egypt a steady water supply all the year round for all time to come; and they will build up hers, at a distance of 1,000 or 1,000 miles south of the Miedi-

permissin son several other Egyms twine or thribe as tich as the lower Nile valley.

well supporting its millions of people.

eservoirs for the Nile. They include the uniment of those tributaries of the White Nile, which flow though the great swamps on the northern slope of the Kango watershed, and also the digging of more than 20 miles of new channels, by which the main stream of the White Nile will be greatly shoftened and its bed fitted 4 for carrying the enormous volume of its

The great trauble now is part of the waters of the Nile so to wonds. It is in size the fourth river of the globe, ranking after the Amunon, the Kongo and the Bio de la Plata in basin and minfall. The area it drains is more than one-third as large as either Europe or the United States, and so much water ft would more than fill a diffeit a mile while and a mile deep, reaching from New York to Chieugo. The river is fed by mighty laires, one of which is the largest on earth. Victoria Nyunga is bigger than size of the Green Salt Take and Lake Tours. has an area of 1,200 source miles. Notwithstanding this, the windings of the Nile are such that more than one-half of the water supply does not get to the grows mightly wearisome, lands that need it, and during the summer thorn is only about energy saved to acedute Egypt. At the time of the floods, which occur every year, wast quanyear round there is an enormous loss swamps of the upper Nile.

Sponge as Big as Indiana.

I discoult of giving you an adequate idea of those mighty swamps. They lie on the northern slope of the Kongo watershed and are fed by the great branches of the White Mile known as the Bahr of Jobel. the Bahr of Chazal and the Bahr of Zaraf. They begin where the river Sohat flows into the Nile, and form an irrogular triangie, the base running from there 20 miles larger it would be a village. Near it are westward and with the southern apex at the North and Little rivers, branches of Ber, which is 20 or 30 miles further south. They lie on the bed of what in prohistoric times was a great laite, and they are com- company this article are of parties from posed of masses of reeds, papers and other swamp grasses. These are so united that they seak up the water like a miguty sponge. Now if you will imagine a sponge as big as the state of lindiams, from two to are feet to thickness, and so situated that it is always filled by the waters of the Nile. you may have some bles of this region. The place where the spange lies is not far from the squatur, and the tropical sun beauts down upon it, so that a steam is niways rising It soaks up the waters of the Nils and gives them out into the air. The evaporation is so great that an amount equal to half the capacity of the Assequit reservoir is less every day, and in the summer fully 20 per cent of the water suppiled by the great lakes does not get into the main stream of the Nile. The water of this swamp is nowhere much over a man's head, and in most places, except. where the main streams flow through, it is anly aloutt as deep as the walst. The overoration increases at the time of the freeds, witten more land is covered, and no matter how much water flows into the awarm, only about 'the same amount flows out. This is

Exploring the sudd.

so throughout the year.

This wast region is known as the Sudit. In is now being explored, and attempts have been made to out channels through in I have nict some of the surveyors who have attempted to penetrate it and some who have broken away parts of it to open up channels for the Mile. They describe it as a wast about of brilliant green made in of pagyrus. Seithery reads and sword grass. Those rise from five to fixual first above the water and are braken here and the. " paols and ingome. The greater part of it this me human inhabitants, and this n especially or of that region along the Suite of Granel. There are some Dinka willages near-Box and a few tribes on the edgeof the Solgien Kongo. Further south at



DANCING GIRLS OF THE BLUE NILE.

sorts of musquitoes, moths spicers and through them. files, and there are other insects which

Opening Up the Tributaries.

Another project, which seems to be more feasible, is the digging of a canal on the Mile, beginning at Bor and running south causes the sleeping sickness. Among the Nevertheless, one of the projects con- across to where the Sobat river flows in.

steady water supply. This dam has made regions that hig game is to be seen. the vegetation of the Suid is matted to- save the enormous amount of water long, and it could be controlled at Bor by find. Lake Victoria would have for each \$5,000,000 more.

Damming the Great Lakes.

one of which may be seen here in the turies of the Nile. It is believed that the the Nile along on the highlands above the proved by means of regulators at Lake and, if so, the kaiser would probably obpalace grounds at Khartum. The wild Bahr el Zaraf could be so banked up that swamps and prevent their flowing into Albert and Lake Victoria, where the Nile ject. Dams at the mouth of Lake Albert It would carrry the volume of the Nile them except when desired. This canni flows out, the supply of water for Egypt would result in the storage of 5,00,000,000 It is impossible to conceive how closely and keep it out of the awamps, and thus would need to be a little over 30 miles and a part of the Sudan would be unlim- tens for every meter of height, and the

to its present enormous cuntents.

an undertaking. The rising of the lake queer binds is the whale-headed stork, templates the opening up of these tribu- Such a canal would carry the waters of With this part of the Will channel so im- might flood parts of German East Africa,

reservoir is miles long, and if now holds. There the land is a little higher, and six or specific reservoir, and I understand meter added to them, a storage capacity back Lorden see that the pasts of the swamps have to be called an interest to be compacted as the swamps have to be called an interest to the swamps. In the least of others foot on the swamps in the least of others foot on the swamps in the least of others foot on the swamps in the least of others foot on the swamps in the least of others foot on the swamps in the least of others foot on the swamps in the least of others foot on the swamps in the least of others foot on the swamps in the least of others foot on the swamps in the least of others foot on the swamps in the least of the swamps in the le mark almost as much more. It has already are yant numbers of hippopotami, and section goes house and becomes a floating ply. The Bailt of Jobel will also be opened from of water for every meter's ward to the great laises of central Africa. addled millions to the wealth of the lower there are all sorts of swamp birds every- beland until it reaches a shallow pace, up for navigation, and by some means or firm the amount discharged into Mile valley, and it has made the Egrutians where. From the reads and mind banks where the route will grow fact again. Buch other a great part of the formal at Assiont. This Bor-Bobat now built, stores only 1,000,000,000 tons, and from the standpoint of the conditions about one of the most prosperous of nations. church of selections and the changes are selected according to the new Lake Victoria. As the civil engineers here pelicans and duchs of every description the river, and some of the main original mean an expenditure of millions of the main original mean and expenditure of millions of the main original mean and expenditure of millions of the main original mean and some of the main original mean and some of the main original mean and there are all impossible for a boat to make its way one, on the stream would cost of Lake Victoria a little over a yard will one of 20,000,000 less about \$1.00,000 and the regulation works store thirty-five times as much in addition than was the cost of building the Assouan

> Improvement of the Blue Nile. If these projects for the White Nile are

carried out, Egypt will have all the summer water she needs and much of her desert, not now trrigated, can be made fortile. The water supply will be constant all the year round, and there will be no objection to the the of the Blue Nile for the irrigation of the Sudan. That river will still be allowed to carry its heavy load of silt down to Egypt during the floods, but, in the summer, it may be so regulated by a dam at Lake Thana as will furnish perennial irrigation to a large region near here. The Blue Nile is just Mr. Catelle said that the fresh water about as long as from Philadelphia to Chicago. It rises in the mountains of was sold in Chicago some years ago for as the orientals. Environment has a great Abyssinia at an altitude as great as that a social amusement. That it is Pionic Party." One man so far forgot. So one or two men will take a few days \$459 and brought the color. In Michigan, of the tep of Mount Washington, and off and heat the streams in parts not usu- Landon market. He heard about the black where the streams flow through iron and winds its way down through Abyasinia The girl in the front row wearing a real ally frequential by the pickinickers. They pearl found in 1857 near Paterson, N. J., copper deposits, many black pearls are and the Sudan to Khartum, where it joins the White Nile. The river here is about as wide as the Potomac at Washington, other scheme contemplates the demming within thirty degrees much and thirty deing to repeat it. Just what the young fatherman does when he lands a trout after it was the finding of this pear? which LIGHT ON STEWARD MYSTERY
and its waters are now beautifully clear.

Out of the Athers so that it will irrigate large grees south of the equator. The fresh woman who is croucing down a little to a hard fight or a hunter when he brings started the hunt for pearls in this countracts in upper Nubia, and still another water pearly you can get almost anywhere the right of center stage is up to could down a mouse. They don't want the pearls in this water mine.

Revival of a Famous Grave Eabhing being loaded with a great quantity of the not be ascertained in time for publication. to sell, but to give to daughters or wives.

Tennesses, Kentucky, Lowa, Wisconsin and the Revival of the assertained in time for publication. river is navigable as far as the cataracts Twenty-nine years to a day from the ar Rosaires, which is all single from the arrow of the mother of pears to a day from the arrow of the mother of the Ar T. Sheward grave robation of the Ar T. Sheward grave robation of the Ar T. Sheward grave robation of the archive from the arrow of the mother of pears to a day from the arrow of the mother of the Ar T. Sheward grave robation of the Ar T. Sheward g Twenty-nine years to a day from the at Rosnires, which is 426 miles from here, which soon units to form a stream 700 Paritor discovered the desscrated grave in fact wide, in which affape it flows on, St. Mark's churchyard. It is the story of narrowing and widening until it reaches

Allout five years ago one of the engineers of the Egyptian brigation service. Mr. Duputs, made an emploration of the Blue Nile and went around Lake Teans. He estimates that the lake will store something like 3,909,000,000 tone of water, and that, with the construction of proper dams and regulators, 15,000,000 tons per day can be given out from January until June. He suys that Lake Tsana can be ensity controlled, and that without affecting the large graning lands which are found near its shures. Another dam might be made at the Rosaires rapids and the two would probably furnish sufficient water to irrigate a great part of the rich lands lying between the White and Bine

Control of the Athers. This same engineer made an investigation of the Arbura river. This is the Black Nile, which flaws into the main stream about two hundred miles north of the mouth of the Blue Nile. The Athura is fed by the Abyasinaan tarrents, and while in flood it is at great size, aithough during The story just brought out on the hint the summer a large part of its hed is perfrom Binden fits that of 1886 in at least one feetly dry. It is called the Black Nile on geographical particular. It points to the account of its color when in flood. At these time its waters are heavily charged with olimanie dust and it carries down a great quantity of the rich fertilizing mud to which the lawer Mile valley owen its wonbelieves that he is the man who signed for derful fertility. The river begins to rise in the body and that it came in a metal case. July. Its foods last only about eighty days and it dries up toward the end of Septem-

Mr. Duputs proposes a great reservoir near the apex of the Athara Delta. In this the water will drop its silt, and when it becomes clear it can be carried through different regulators into canals and used for irrigation. If this is done considerable land at the junction of the Athura and the main Nile can be irstrated, and a thirtying region will result there at the point where the Mile and Red Sea road units with the great coute from Caire to the cape.

Nile a New River.

The schemes that I have described are so far only in embryo. Sir William Garatin. who is at the head of the public works of Egypt and the Susan, has made a report upon them and the government has sent out explorage along the different rivers to investigate their possibilities. They report many new things regarding the Nils sysem, the upper part of which is now for the first time becoming known to the world. During a recent interview with the stream, Sir Reginald Wingate, I saked him whether we imve yet gotten an accurate knowledge of the sources of the Nile and the actual flow of its waters.

"We are learning a great feal about the was his reply. "We have surveyed the main stream from where it flows out of Victoria Nyanza and have followed it down to Elurium. There are many of the tributaries, however, of which we know but ditie. I have men now exploring the vast system of streams which feeds the White Nile in the Bar of Charal, our provin which hunders the Congo watershed. That municy is difficult of acress. It is covered with a mank regetation consisting of paperrus, resells and grasses. Which are twelve ar fictions feet in height, and our officers have to heep track of one another by sending up restacts from time to time. Gur first attempts at the investigation of those streams were from the north, but we are now going to their headwaters and following the streams down to where they flow into the Nie. We are building main there and we who knows what was the real end of the hope to open such communication by steamer that goods can be taken by the Nile to and from the watershed of the FRANK G. CARPENTER.

## The projects senterace the regulation of Pearl Fishing a Profitable Canadian Amusement



profitable, too, doesn't detract himself as to come in a derby. from the fun of the

carry fevers and the testme fly, which

goese are black, white and brown,

HE II IM TRIVILLY CONDITIONS There is a river every now and then in pearts. The headwaters and tributuries of the Petitesdiac and the Saint John rwees are good pearl streams. Pearls are also found further parth in the territory of the Restigouche and the Miramichi rivers.

Aside from those who hunt pearls for fun fails that if it could be collected together the Indians are about the only persons who make a business of it. But the Indians don't work very hard at anything. When one of them gets a pocketful he hastens to the nearest town, finds a purchaser at any old price and then laye off until he Laire Superior Laite Albert is about the feels the need of replantshing his renounces. Peuri fishing in these New Brunswick streams is no sport for wealthings. mussels are half buried in the sand and rocks at the bottom and the stooping over

As the water is sometimes almost to the kness, it is no easy matter to wade about. Wet stones are slippery things at hest. When the spring floods have substitled fiddle, which derigo to waste, and all the the young people in the towns begin to organine pear! fishing parties and they keen going on by the ecaporation from the it up all summer. From St. John and from Frederickton they drive out in large parties to some favorite spot and put in a day of pleasure. Of course, like hunting or fishing or any other outdoor sport, you feet hester if you've something to show for the day's work, but those who have been on these Trips say they enjoy it, whatever

> A popular pince with these amateur pearl fatters in Saliabury If Saliabury were the Setitondian, and the water of both puris ever the pearls. The pictures which ac-

over for profit merely, but up on a real hat, which is not de rigneur. In the province of New Bruns- A greater variety of ciothes is on view don't want a crowd if you desire to get a . The reporter heard about a pearl that pearls were of as many varieties of color wick, Canada, pearl fishing is in the picture labeled "A Pearl Fishing full creek

The sait water, or oriental pearl, is bathing suit is a New Torker and this is find just as much pleasure in extracting a which was sold to the Empress Eugenie found. waters unrestrained down to Khartum. An- gathered, roughly speaking, on every quast her very first experience. She is quite will- large pearl from an inoffsasive claim as the for ELSE. the highlands of Abyssinia, which will Every state of this country produces. After you get your picture taken in your or sweethearts; or, if the finds are especimake that great take a reservoir for the pearls, but usually the gathering is inci- stage clothes-which is a very necessary ally good, to friends,

> the Petiteodiac and the St. John rivers mussel of fresh water rivers is always are found the mussels which produce the called a claim. It isn't right, of course, for a clam does not produce real nearly.

Whether or not the clam appreciates the compliment could not be learned. When everyone has collected a reas able number of the clams, he or sile, as the case (or the gender) may be, proceeds to the anxious business of opening them.

They open easily. A group engaged in this operation was caught by the camera and is displayed herewith. The young woman standing up apparently has found a pearl and she is speculating as to its value.

It must be confessed that the rewards of these industrious amateurs are not very great. As they keep going to the same place year after year, a mussell doesn't get much of a chance to produce a good sized pear! before he is rudely enstabled from his next. Butt once in a while a linkly figher will find a stone thur. is worth anywhere from 25 to 200.

There is a more serious side to amateur

betten results. It's like trout fishing; you buy it.

across. It toock him more than a week, but he got a fine assertment of valuable

name-grown pearls which she would not seil for many thousands of dollars. Her husband not only hunts pearls himself, but has men out looking for especially fine

His will buy a lot of pearls from an Indian for \$15 or \$30 and among them will the reporter asked. likely find aix or eight worth from 25 to 220, have been found in the streams near

That often bear it said that fresh water with the oriental pearls. That is not true now, though it may have been true thirty years ago. The reporter to whom this from the orientals.

American fresh water pearls of great value were shown to him. One firm has in stock a pair of Mississippi pearls, weigh-

pearl hunting which brings about much hibited with the remark that 200 wouldn't they were seiling American pearls or not."

of such things, they said.

"Catella" proved to be Wallis R. Catelle. who when he isn't buying and selling diafacts and puts them into books. He has westen a whole volume about pearls, which is sumething.

"I suppose oriental pearls are immensely more valuable than the tresh water kind?"

"Not ut all," said Mr. Catelle. "A pearl's 250 each. Some pearls, valued as high as a pearl wherever it grows, it all depends, "The oriental pearl is softer in lustre able. A frost water pearl is agt to be metallic in tone.

But the fresh water pearls are frequently so fine that you can't tell them was told went down to Maidea lane to find rapidly in the public estimation and consequently are growing in price too.

"Lots of them go abroad, where they mand higher prices than they do here. I saked dealers in London what they ne and one-quarter grains, which thought of American pearls and they didn't were priced at 200. A pink pearl weigning seem to know what I was talking about. fourteen and three-quarters grains was ex- I really don't know whether they knew

the Body.

ber 8, 1978, that Assistant Sexton Francis his American connections with Stewart and Rosaires. Judge Hilton, told last Friday by Rebert Caldwell in the suit brought to establish the identity of Thomas Charles Drune as the fifth fulte of Portland, that has led to a new version of the story that the stolen

bwdy of Stowart was returned. One of the first accounts of an alleged return of the corpse declared that there had been in a dark alley of New York one night an exchange between a Hilton representasack centaining the Stewart remains. Later in January, 1896, a circumstantial story was printed stating that on the failure of negotiations between Judge Hilton and a gang of ghoule headed by one "Gypsy Larry" the body had been "lost" in a trunk in Chicago. It was said to have been taken first to Gloucester, N. J., then to Paterson, then to Canada. Included in this account is the incident of an interview in which inspectur Byrnes withdrew from the case after expressing the opinion that Judge Hiltun did not care a copper about recovering the remains so long as he had to pay for

possibility that the body was returned by express from Montreal, Carada, in the opring of the year after the grave opening. The narrator, the nan employe of Hilton, which was shipped at once from the diswart store by the Long Island express, pro-

ourse. It is only "one more story." Mrs.

Stowart died, it is said, believing her bus-

band's bedy was in the cathedral crypt pre-

pured for it. Judge Hillian is dead with

witatower seconds of the affair he may have

held. Pretunkly there is no one living, un-

less of the original grave-cubing gaug.

ghassly business. The crypt of Garden

City is still the attiding place of a mystery.

-New Turk World.



A PEARL FISHING PICKIC PARTY

Moneton who have driven twenty miles-or

by painties of ambition trees and by chan- is to dress for the semution. Psari fishing etiquette says that the less you wear the better. A bathing suit may be suitable, but some counider it altogether too dressy for so unconventional an sersaion.

You will get an idea of the variety of the continuing in the picture of the group standing in the water mady to begin operinns. The young woman in the center has apparently becowed the top piece of