

THE DAMMING OF THE COLORADO RIVER

One of the Great Irrigation Works Undertaken by the United States Government.

A. R. Kanaga, in Farm and Irrigation Age.

EARLY in January, Secretary of the Interior Hitchcock issued an order that an advertisement be made for bids to build the settling dam at Yuma, Arizona—careful surveys and preliminary work has been carried on by the engineering department of the Government at this point for 15 months past. The engineers have two objects in view by the construction of a dam across the Colorado; one is to raise the water from a point higher than the level of the river so that the necessary fall can be secured to carry the water on all the acres in the Yuma Valley, many thousand acres of which could not be irrigated by drawing water from the ordinary level of the great Colorado River.

A second purpose in view by the building of this dam is to create a settling basin for much of the silt which when permitted to run unobstructed into the canals causes them to fill up at such a rate that in one year they become one-third full of sand and silt; the dam is to be constructed in such manner that at intervals it will be opened so as to carry off at least a portion of the accumulated silt and sand.

No effort is or will be made to conserve the water by the maintenance of this dam inasmuch as the Colorado carries a never-ending supply of water at all times of the year, and the supply is greatest in the Summer months when most needed for the purpose of irrigation. During the last two years I have visited nearly every important irrigation project in the West, both those installed by private enterprise and also the larger ones which are now coming under the attention of the efficient Government engineers, and I know of no place where the water supply is so overwhelmingly vast as the mighty Colorado; look on the map and you will see that the watershed that feeds this river extends over several states, and its area covers many thousands of square miles; the headwaters are replenished from melting snows on the high mountains.

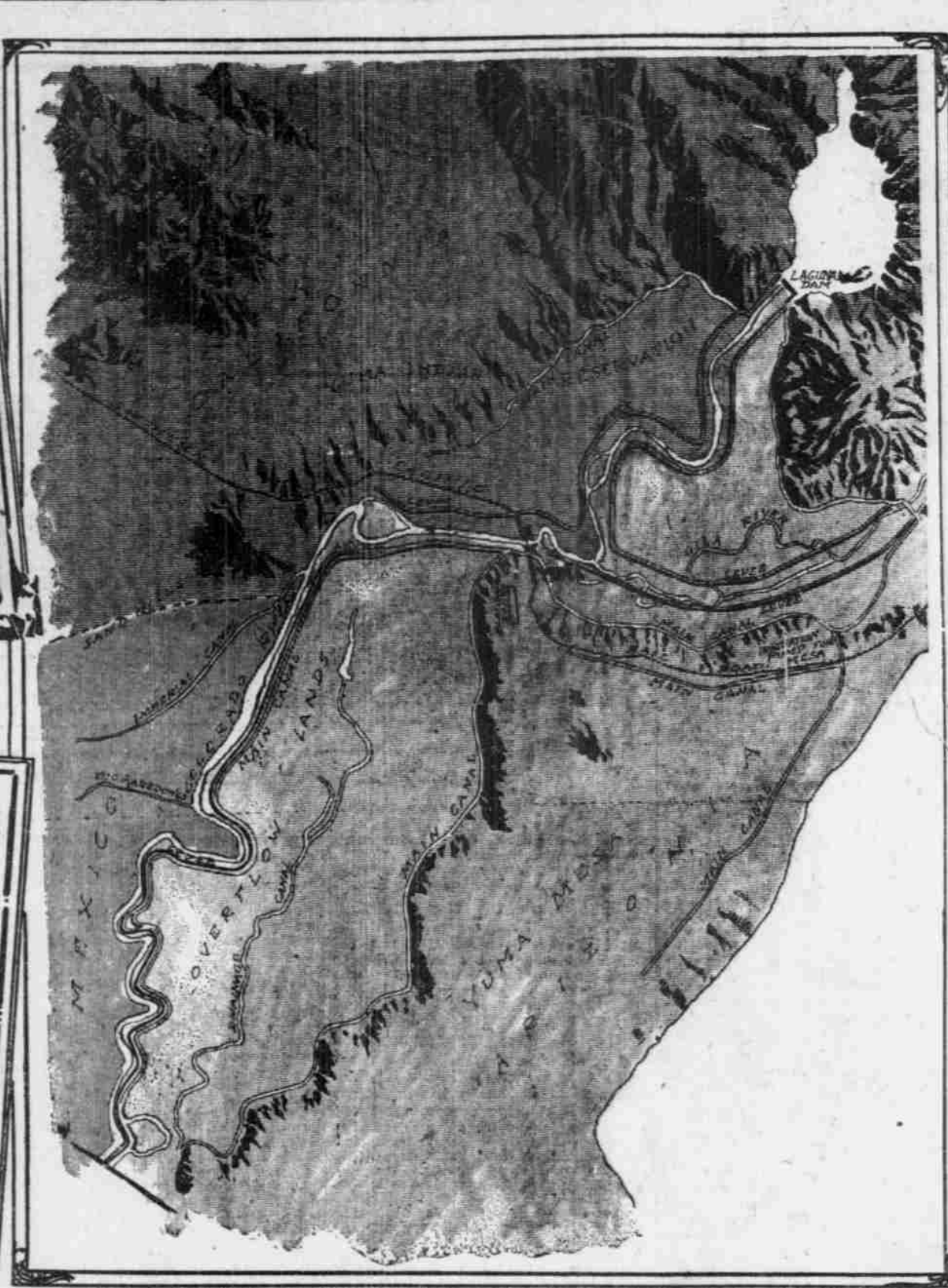
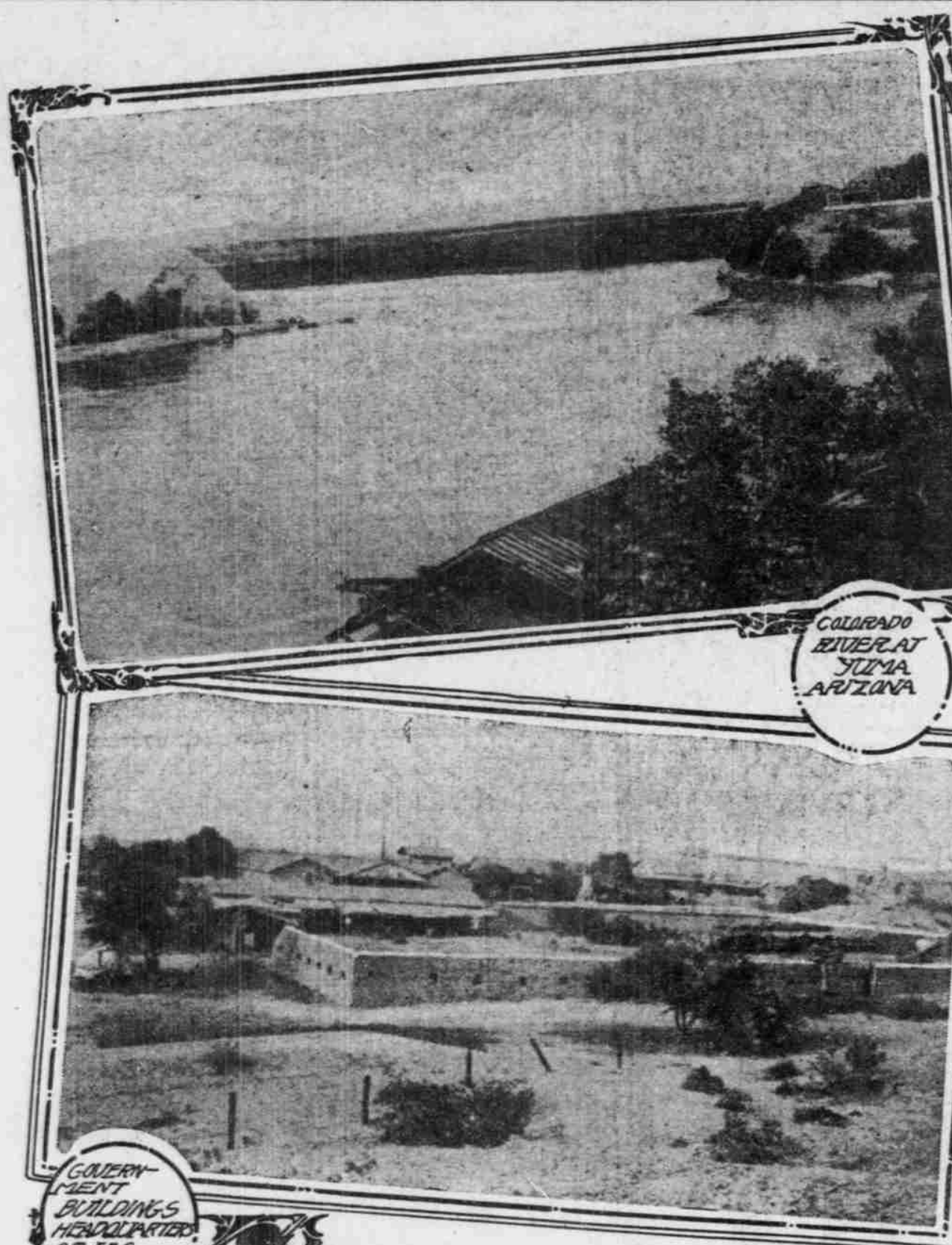
Will Irrigate 115,000 Acres.

The immediate use of this dam will be made to carry water on some 55,000 acres of rich lands around Yuma, and will also turn water on something like 20,000 acres of land on the California side of the Colorado River. Most if not all of these lands on the California side lie within the Indian reservation, but they will be improved possibly by the energy of the white man.

In close proximity to the dam is a vast tract of high land known as mesa lands. I am told that it is an ultimate project to pump water from the dam into canals to be carried over these lands, but at present there is nothing settled as to the policy of the Government in this pumping plant, and it is one of the matters that will be taken up later on. Speaking again of the low or sedimentary lands in the valley—they have been taken up by settlers many years ago, and at present but few claims are open for Government entry.

On investigation I find that many farmers in the valley own several hundred acres, but under the present rules of the department no landholder or settler will be allowed to hold more than 160 acres; thus it will be obligatory for the large holder to sell all of the land he owns over and above his quarter-section of land. Speaking of this settling dam, it will be one of the greatest engineering feats in the country, for it is a tremendous piece of work to throw a dam across such a mighty waterway as the Colorado River. But it is not a new thing, nor are we ahead in this line of work, for Mr. Bakhat, the eminent Egyptian engineer, stated at the late El Paso Irrigation Congress that their dam at Assouan, on the Nile in Egypt, had already cost his government over \$40,000,000, and was not yet completed—a sum greater, by the way, than the entire reclamation fund of the United States.

I learn on reliable authority that the canal leading the water from the dam



will be 85 feet across the bottom, and over 100 feet across the top, and will be more than 20 miles in length when it will be divided into two forks; each will be about 17 miles in length, and from these two main canals will radiate in all directions laterals and ditches that will make over 100 miles in extent.

In a very short time work will commence on the river levee, which will be more than 55 miles in extent. These levees will keep water in times of freshet from overflowing the sedimentary lands known as the Yuma Valley, but it should

be remembered that even in times of high water they do not overrun to exceed one-third of the valley, and the levees are built to protect this portion of this exposed part.

At the present time there are four places in the world where great rivers fed by melted snows flow through a desert country. These four places are the Valley of the Indus, in India; the Euphrates and Tigris, in Turkey; that of the Nile in Egypt, and that of the Colorado in the United States.

By the time our Government is

through with this herculean task I believe the Colorado will be about as well known in Europe as the Nile is in this country. Back of this great project are four men who figure conspicuously in this colossal work. The first is Mr. Hitchcock, Secretary of the Interior; Mr. Newell, chief of the engineering department in the reclamation service, with headquarters in Washington, D. C.; J. B. Lippincott, chief engineer in this division, who is stationed in Los Angeles, Cal., and Mr. Hamlin, who is located at Yuma and has direct charge

of the working operations on the ground.

The climate here is such that eight crops of alfalfa can be taken from the land in one year, and if raised grapes can be grown, as predicted, they can produce them in such quantity that they can supply the market for one-third of the civilized world. Vegetables of all kinds grow well here, and wheat, oats and barley will be one of the staple crops, while oranges and lemons grow to perfection.

When we take into consideration the

rich lands and the vast water supply, the farmers here can hold their own against the world.

Nor is it difficult to see what the future of this country will be, for the water and soil conditions are practically the same around Yuma as they are in the Imperial country, in the Hemet Valley, in San Diego, and Riverside County, California, respectively. These irrigation districts are but a short distance from Yuma, but they are living examples of what the soil will produce. Last week I rode through

the Hemet Valley, and I passed through a country that was a network of orange orchards, walnut and almond trees. The farmers were wonderfully prosperous in both of these irrigation districts of Imperial and Hemet, and the farmers in this valley will enjoy the same prosperity—for in my travels over the Western states in the last two years I was not slow to observe that the irrigation husbandmen were the most prosperous farmers west of the Mississippi River.

A. R. KANAGA.

Some Japanese Stories of Japanese Bravery

Individual Acts of Heroism in Battle Inspired by Love of Country.

FIRST, let me tell you of the last cry of Captain Tachibana, whose heroic deed is known to every true son of Nippon.

Captain Tachibana, until he ended with great honor and valor, was with General Oku's army. When the Shusan fort was first attacked, on September 20 last, he led the storming party on the northeastern side. The whole morning the captain and his men fought in vain. Reinforcements were given him at the same time, but he was waded even more fiercely than before, but still in vain, for the heights were steep and the Russian bullets fell as thick as hail driven on the gale.

Thus the struggle continued until 2 o'clock of the afternoon, when the captain, forming his men in line, gave the command to charge, and with a war song on his lips led them far up the slope, regardless of the risk of steel, with very few of them shouting the name of the lieutenant had begun. Filled with the inspiration that comes of respectfully meditating on the virtues of our august Emperor, there was no stopping the storming party, and before the enemy could realize what was happening Captain Tachibana, who was far in advance of his men, had jumped into the fort and struck down dead six of the enemy with his sword. His heroic example was followed by his men, there was hot hand-to-hand fighting everywhere, and finally toward evening those of the enemy who remained alive were driven from the fort, and our victorious soldiers sang the Kimigayo, the national anthem, and prepared to hold the fort.

At 5 o'clock the next morning the enemy in strong force attacked the fort from three sides, subjected Captain Tachibana and his men to a severe crossfire, cut off their retreat and soon had killed one-third of their number. The heroic captain was shot in the left arm. He nonchalantly bound the wound and stood on top of the fort and gave his commands. One of his lieutenants objected to the seeming carelessness, and added: "We must retreat or we are lost."

To this the captain replied: "This is the birthday of the Imperial Prince, and on this precious day I have already lost one-third of my soldiers. What matters it if the enemy outnumber us ten to one? If the fort is retaken by them it means losing our arms. It is hard work, but we must hold the fort, or you must die with me here for the Emperor's sake."

Just then two bullets struck the captain and he fell to the ground. For a moment he lay still; then, pulling himself to his feet, he shouted: "I am dying for the Emperor's sake, and the army's sake. Don't give up the fort. Fight until every man is dead!"

Again a bullet pierced him, this time in the abdomen, and the lieutenant with him was killed at the same time by another bullet. By this time the enemy were swarming into the fort, the handful of our soldiers still able to fight were making a heroic defense, but were gradually being beaten back. Captain Tachibana, from where he lay, beheld all this. He tried to rise to his feet and once more use the sword he still faithfully grasped in his hand. But his wounds were too

many, his intestines were already seeking their way out, and he died, crying with a flood of tears because the fort was being retaken and he could do no more for the glory of our virtuous Emperor. So his last heroic act on earth is now known all over Nippon as "The Last Cry of Captain Tachibana."

The Self-Sacrifice of a Scout.

Now let me tell you about the brave Sub-Lieutenant Tanaka, a scout, who went into the enemy's camp, was discovered and wounded in the abdomen, but after many perilous minutes managed to escape from the enemy, and by painfully crawling over a thousand meters on the way often fainting from loss of blood, at last, by reason of his undying faith in the virtue of the Emperor, managed to reach a Chinese village, where he was concealed in a friendly Chinese hut and given a Chinese disguise.

Here he remained for the day. That evening a party of scouting Russians entered the village, committed many regrettable excesses, killing and robbing and outraging, and finally entered the house in which Sub-Lieutenant Tanaka lay hidden and demanded food and drink. The feast was spread for them, and soon the enemy were deep in their cups, ever and ever calling for more liquor and leaving the food untouched. Soon they were all drunk.

In the meantime, Sub-Lieutenant Tanaka had been thinking of his Emperor. Dressed in his Chinese clothes, he crawled unnoticed into the room, for the Russians had their faces always in the mugs. Waiting his opportunity, he seized a bundle that the commander of the party had tossed on a bench beside him and heroically crawled out of the room and back to his hiding place. On the Sub-Lieutenant's return, the Russians and even helped him along with a brutal kick, thinking evidently that the Sub-Lieutenant was some cripple whom he could treat as he pleased.

All that night the Russians spent in drinking. The next morning they left, all still drunk and without a single thought of the bundle which Sub-Lieutenant Tanaka had stolen from them, and which had turned out to be valuable maps and some important plans of fortifications.

You may be sure that Sub-Lieutenant Tanaka lost no time in sending word to his General by a friendly Chinaman, and a detail of our soldiers arrived soon after the Russians had left, and to them the Sub-Lieutenant turned over his precious capture and implored his comrades to make all possible speed back to their General.

"But we are to take you back with us," they said.

"No," declared Tanaka, "I would be a burden to you. Leave me here. The plans are of more value to the Emperor than my poor life."

So they left him.

Towards evening of the same day the Russians excitedly returned to the village. They went straight to the house where they had caroused the night before. They searched the house, but found no plans. They discovered Tanaka instead. They hauled him out of his hiding place, and were on the point of binding him to take him away with them as a spy to their superior officer when suddenly Tanaka, seizing a sword, stabbed one of the enemy to death, com-

mitted hari-kari, and as he fell dying, cried:

"The plans are safe in my General's hands. I have done my duty, and by killing one Russian and myself there is square dealing all around. Banzai for the Emperor!"

At last the enemy, relying on numbers—there were 30 of them now—again charged upon him. Before they reached him he shot three more, then throwing away his gun he put his whole reliance in his sword and managed to kill four before he sank to the ground bleeding from countless wounds.

Apparently he had at last been done to death, and the enemy left him. But hours later he was found by his comrades and revived, and at last report was rapidly recovering his health.

Neiga is now famous as the bugler of many deaths, almost as many as have been credited to the American samurai, David Crockett.

Shall I tell you of Lieutenant Yokoyama, the Lieutenant and his small company were in the enemy's country about Mukden making a reconnaissance. They knew the enemy to be all about them, but they knew not where under which our soldiers were then engaged his soldiers to meet valiantly an unhidden danger that might suddenly make itself known, the Lieutenant led in singing them war songs and marched like the conqueror.

But the war song did more than to encourage the soldiers. It brought the fire of the enemy holding a hill under which our soldiers were then passing. For a second the withering fire stunned them. Then the Lieutenant, waving his sword, ordered an advance, and his men heroically began the ascent of the hill, charging in the darkness an enemy whose strength was unknown and who was unseen.

Half-way up the hill the charge was halted by the merciless fire, and the Lieutenant was hit in the loin. Realizing that he still had work to do for the Emperor, he coolly bandaged himself, and, suppressing all signs of pain, he regained his feet, walked to the head of his men, in ringing words again ordered the advance, and using his sword as a cane, he leaped up the hill with the others.

On they went in the night, lighted up only by the flashes from the enemy's guns. At last they reached the top of the hill, to find it crowned with a fort. But their heroic souls were not dismayed. They intrepidly scaled the walls. The Lieutenant scrambled over with them, with the help of his sword. Inside there was a terrific hand-to-hand fight. The Russians three times our force in strength. But our men were inspired with the merit and greatness of our Emperor. There was no withstanding them. Everywhere the Russians were beaten back. Then, just as the last were surrendering, a fearful cheer rent the night. It was Lieutenant Yokoyama's banzai for the army. It was his last banzai. When his men ran to him they found him dead, lying across the bodies of three Russians he had killed with his sword.

A. NANEKI.

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Vanderbilts, the Best-Known Railroad Family

Continued From Page 33.

declined, and probably with wisdom. It was said that he was slated for the Secretaryship of the United States Legation at Berlin. Should he enter the diplomatic life, the distinction will undoubtedly be due to his wife.

The feud between Cornelius III and his mother and brothers was made up a year or two ago.

Alfred Gwynne and Reginald Claypool

Alfred Gwynne plays polo, owns automobiles, has made the driving of the four-in-hand coach "Pioneer," which takes passengers up the river out of New York for money, a serious business, and does most of the things that very rich young men do these days. He devotes little or no time to the family railroads. His marriage at 21 to Elsie French was spectacular. They have one son, named William H.

Reginald Claypool, youngest son, and head of the family should Alfred die, has signalled himself by a showy marriage to Catherine Neilson, granddaughter of the original Frederick Gebhardt, and certain gambling indiscretions which no doubt will be forgotten by and by because of his youth.

He lives on an estate near Newport, which he calls Sandy Point Farm, where he keeps horses, dogs and automobiles galore.

Gertrude Vanderbilt, sister of these young men, has been the wife of Harry Payne Whitney, son of the late William C. Whitney, since 1888.

The Duchess and Willie K. Jr.

Consuelo, daughter of William K. and Alva Smith, won the biggest matrimonial prize that has fallen to any Vanderbilt, when she married the Duke of Marlborough in November, 1898. Her wedding was a marvel of display and brilliance, and cost a fortune. Her mother, now Mrs. O. H. P. Belmont, is said to have been materially assisted by Lady William Berosford in engineering the courtship.

William K. Vanderbilt, Jr., has so far been distinguished chiefly by his devotion to automobile and motorboat racing, and his much-talked-of marriage to Virginia Fair, a daughter of the famous Bonanza family of California. He is dashing and capable, like his father; has a desk in the Vanderbilt offices, and will some day probably be what his father is now—the real Vanderbilt head.

William K. Vanderbilt's youngest son, Harold Sterling, aged 21, is still in college, and has yet to make his personal impression on the world.

Homes, Millions, Yachts

Wealth of the Vanderbilts Compared With Rothschilds.

THERE were no splendid Vanderbilts homes till after the Commodore's death. Then William H. built a great brown residence block across from St. Patrick's Roman Catholic Cathedral on Fifth avenue extending from Fifty-first to Fifty-second streets at a cost of \$1,000,000. It was really three houses

in one, the southernmost being for himself, and the other two for his daughter, Mrs. Slocum and Mrs. Shepard. Though New York has several much more costly residences now, when built this threefold palace made the whole country gasp. After the death of William H. his son, George W., occupied it for years, and it is now his town house.

Some years later Cornelius II built a far more costly home at Fifth avenue and Fifty-seventh streets. It was in this house that he died. At 544 Fifth avenue stands Willie K.'s house, not so costly as these two, but by no means considered more artistic than either. Willie K., Jr., and Cornelius III also have houses near by on Fifth avenue, and so have several members of the family by marriage. So numerous are these residences in that neighborhood that it has come to be termed the "Vanderbilt village." Besides their own residences the Vanderbilts are reported to have bought much other property near by to protect their investments in the real-estate market, which is gradually creeping up the avenue.

Including the magnificent "Marble House," built by Willie K., and the "Breakers," built by Cornelius II, at Newport, George W.'s North Carolina palace and Bar Harbor "cottage," Frederick W.'s three or four residences in and out of town, and the more modest homes of the younger Vanderbilts in town, on Long Island and at Newport, the total value of the family residences cannot be less than from \$15,000,000 to \$20,000,000.

Vanderbilt Wealth Compared With the Rothschilds.

Not even the Vanderbilts themselves could compute their wealth with accuracy, so changeable are the values of the securities which represent it. If they tried it would take so much time to make the computation that it would not be correct when finished. But these figures, made by one who knows something of the situation, may be accepted as being as near the facts as any likely to be presented:

William K. Vanderbilt, Sr.	\$125,000,000
Reginald Vanderbilt	12,000,000
Cornelius Vanderbilt III	20,000,000
George W. Vanderbilt	20,000,000
Mrs. Elliot F. Shepard	20,000,000
Mr. and Mrs. H. McKay Twombly	20,000,000
Mr. and Mrs. W. D. Hoag	20,000,000
Mrs. Harry Payne Whitney	12,000,000
Total	\$241,000,000

No figures are given for the Duchess of Marlborough, Willie K., Jr., or Harold Sterling, for it is understood that they are, as yet, without money of their own, though receiving very liberal allowances. Neither is any note taken of the wealth of the Commodore's daughters' families.

It is so widely distributed now that it would be impossible to estimate it accurately, but good authorities say its aggregate would surely bring the total of the fortunes founded by the Commodore up to \$400,000,000. This is only \$500,000,000 less than the \$900,000,000 credited to the Rothschilds, Europe's most famous multi-millionaires, who are now split up into 30 families, and the foundation of whose wealth was laid in the middle of the 18th

century, at least 50 years before the Commodore began operations.

Though no longer a maritime lot, the Vanderbilts are still fond of salt water, and their yachts are known on every sea. "The Valiant," owned by William K., Sr., is the largest pleasure craft afloat. He has been a member of every syndicate formed to defend the America Cup for many years.

Intimations are being made constantly that the Vanderbilts are relaxing their grip on their properties, and it was announced recently that John D. Rockefeller had secured greater influence in the family roads than the Vanderbilts themselves. This is not credited by financiers and railroad men, though it may be that joint trusteeship of the Vanderbilt and Rockefeller interests has been effected. In any event, it is William G., and not John D. Rockefeller, who is interested. As Thomas W. Lawson has said, the younger brother, and not the older one is now the active Rockefeller force.

That William K. Vanderbilt will continue to be the actual and genuine head of the Vanderbilt properties is not doubted in any well-informed circle.

Argot of the Underworld.

"When I gave up strictly charity work and began to visit the homes and haunts of men who are commonly called 'crooks,'" said Miss Ada Elliot, the Tombs Angel, who has just given up her mission to return and finish a college course at Radcliffe. "I discovered that I had to learn a new language if I wished to understand half that was said to me. It is spoken not only by the crooks themselves, but by the women in their families and the tradesmen with whom they do business.

"For instance, a 'stretch' means a term in jail, and is never referred to in any other way. 'Swirlin' a super' means stealing a watch, while to 'kop a man's brass' means to steal a man's money. A person's eyes are invariably referred to as 'peepers' or 'larners.' In sending a child out for 10 cents' worth of gin, it is instructed to ask for 'white water.' Gamblers are referred to as 'xams' or 'punters,' and they win or lose 'rhino,' not money. A man who was 'dirty,' I learned to understand was a man with plenty of money, while a man without money was 'clean' or 'on the hog.' A 'fly bull' is a ward detective, and anything that shoots is a 'peeper.' An 'amm' is a job, or a crook down on his legs.

"I once asked the wife of a man who was in the Tombs whether she would cook her hungry children some breakfast if I sent the food around. She looked at me without comprehension. I made a motion of eating. 'Oh!' she exclaimed, 'you mean will we chew the live? Sure we will!'"

The Cuck's Ring.

New York Sun.

"Curfew shall not ring tonight!" exclaimed the brave girl.

"How are you going to prevent it?" we inquired.

"If I shall swing on the bell exactly as I hang on the ear strap," she replied.

Herein we see where she got her practice for the heroic deed.