HISTORY OF FOURTH

More Significant Influence Than Any Other Day.

WITNESSED BIRTH OF NATION

Cross Triumphed Over Crescent, "Magna Charta" Signed, and Other Important Events Transpired on July 4—English Barons Won Freedom in 1215; Colonies in 1776.

By RUDOLPH DE ZAPP.

The fourth day of the month of July ever since history was first recorded has had a significant influence on the history of all ages and nations, more so, probably, than any other day in the calendar. It has witnessed the birth of new nations, scientific discoveries, and the evolution of new principles, and it has also seen the fall of proud monarchies and the death of ancient institutions, customs, and laws. It was on this day that the Cross triumphed over the Crescent, that Christianity vanquished the infidel, and right and justice achieved a signal victory when King John of England was compelled by his barons to sign "Magna Charta." But the crowning achievement of this day of days was reserved for this hemisphere, when, on the 4th of July, 1776, the trumpet blast proclaiming liberty and equality to all men was sent re-echoing throughout the world. Kings trembled upon their thrones and entire nations which for ages had groaned under the most abject tyranny, cheered and encouraged by the light of liberty, have risen in their manhood and broken the chains of oppression.

May the "Fourth" continue in its glorious career of events that are of benefit to all humanity, which history has recorded to its credit as follows:

Moslems Are Defeated.

On the "fourth" in 1097, in the battle of Dorylaeum, in Phrygia, the Moslems under Soliman were defeated by the Crusaders. This battle ended the fighting in Asia Minor. Soliman was a Persian sultan, and was succeeded by Sheik Ali, Khan. In the wars of the Crusaders no less than 6,000,000 people were killed either by sickness, fire, shipwreck, or famine.

It was on the "fourth" in the year A. D. 1215 that King John of England was compelled by his barons to sign "Magna Charta," the English prototype of our own Declaration of Independence. The American continent just north of Florida in the year 1584, on July 4, was discovered by Amidias and Barlow. They were English explorers and navigators, and made the discovery as they sailed along the Atlantic coast under orders from Sir Walter Raleigh. Formal possession was taken for the English Queen and the land was delivered over to the use of Sir Walter Raleigh.

Sixty-nine years thereafter, on the "fourth," the Barebones Parliament assembled at White Hall and Cromwell delegated their chairs to them for fifteen years. This parliament derived its name from Bare Bones, or Bar Bones, who was one of its members.

The object of this parliament seems to have been to reform the administration of the law as it was then carried out. It wished to abolish imprisonment for debt, began the process of abolishing the Court of Chancery, passed a civil marriage act, and commenced the codification of the law. It decided to abolish the power of patrons to present to benefices and the institution of tithes. These resolutions, especially the latter, would have rendered the existence of a state church impossible. Many men of wealth, distinction, and learning were members of this parliament.

Brings Treasure to London.

In 1744, on the "fourth," George Anson, baron, brought to London thirty-two wagon loads of treasure and deposited them in the Tower of London. He was second lieutenant in her majesty's navy and for two years sailed under Admiral Byng in the Mediterranean.

In 1724 he became post-captain. He visited South Carolina and founded the town of Ansonin in 1733. In 1740 he was dispatched with six vessels to sail around Cape Horn and rifle the shores of Peru. At the instance of the Lords, the trade commissioners from the colonies of New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, and Maryland met at Albany on June 19, 1754, to arrange a treaty with the Six Nations.

They also proceeded to consider a plan of colonial union, proposed by Franklin and adopted in the same year on the "fourth." It provided for a president general of all the colonies with veto power, and a grand council, to consist of from two to seven members from each colony, chosen by the assemblies, to serve three years. These should have power to control Indian affairs, to raise and equip forces for colonial defense, and to lay taxes therefor. The Crown rejected the plan because it gave too much power to the colonies; but it was one of the first ideas of national union.

The plan of this Albany convention was agreed to exactly twenty-two years before the Declaration of Independence, but was afterward rejected by both the colonists and the crown.

Greatest Fourth of All.

On the immortal "fourth" of the year 1776 the Declaration of Independence was adopted by the Continental Congress. It was thirty-nine times before that body until it was finally adopted. Entire separation from England was not at first thought of by the colonies. New England wished it, but the Southern States were against it.

The seat of war having in 1776 been changed from the North to the South caused the South to also change her views. The North Carolina Convention took the first step toward independence by a resolution to concur with those in the other colonies in declaring independence. This occurred on April 22, 1776.

Virginia on May 17, 1776, prepared the title of the document by directing her representatives to propose in Congress a "Declaration of Independence." This resolution was offered by Richard Henry Lee on June 7, and was adopted on July 2. Thomas Jefferson, John Adams, Benjamin Franklin, Roger Sherman, and Robert C. Livingston were the committee appointed to draft the "Declaration." The draft was formulated almost entirely by Jefferson.

Before July 1 Pennsylvania, Maryland, and New Jersey had instructed their delegates to vote against the "Declaration." This instruction was rescinded. South Carolina came over to the majority. Delaware's vote, at first divided, was cast in the affirmative. The "Declaration" was therefore adopted by the unanimous vote of twelve States, New York alone not voting.

Signed in August.

On July 4, 1776, the New York convention afterward ratified the "Declaration;" the engrossed copy was signed on August 2. The "Declaration" sets forth the right of man and the colonies, enumerates their grievances against the British government, and declares "that these United Colonies are, and of right ought to be, free and independent States."

An expedition from Virginia under Maj. George Rogers Clarke on the "fourth," 1778, captured the British fort at Kaskaskia, Ill., and on the same day the massacre at Wyoming took place. The American forces were under the command of Col. Zebulon Butler and consisted of 400 men, while the British forces were commanded by John Butler and numbered 1,000. On the "fourth," 1781, Williamsburg, Va., was evacuated by the British under Cornwallis while he was making his retreat from Richmond to the sea.

In April, 1793, Edward Charles Genet landed at Charlestown, sent to the United States by the French government by the same council that had sent Louis II to the scaffold, and was received by the French party, or popular people's party in the United States, with enthusiasm. Prior to going to Philadelphia, Genet issued commissions to privateers and ordered that their prizes should be tried and condemned by French consuls in the United States. He believed that the people who gladly received him here represented the government of the United States, or certainly part of it. They, however, represented a portion of the masses only.

Genet declared he would appeal direct to this party against the decisions of the officers of the administration, and at last he became so unreasonable that the United States had to demand his recall, that being the only dignified mode of redress and way out of the difficulty. The neutrality act of 1794 was also passed by Congress as a defense measure.

Matters Near Crisis.

A British order which was issued, directing its cruisers to make a prize of any vessel carrying the produce of any French colony, or transporting supplies to such colony, became public two months later and created great excitement in the United States. At last matters became very serious, and to prevent war Chief Justice Jay was sent as an envoy extraordinary to Great Britain to treat with Lord Grenville, minister for foreign affairs. Grenville was as eager for an easy adjustment of these matters as was Jay, and the result was a treaty ratified by the Senate in June, 1795. Prior to this event action took place off the Capes of Virginia between the French privateer Citizen Genet and two armed English vessels with a convoy. The convoy was captured and the two vessels much damaged.

On July 4, 1804, the first mail stage commenced running once a week from Pittsburg to Philadelphia, and on the "fourth," 1817, the construction of the Erie Canal was commenced in the neighborhood of Rome, N. Y. Thomas Jefferson, third President of the United States, who was born in Monticello, Va., in 1743, died on the "fourth," 1826. The main event of Jefferson's administration was the purchase of Louisiana from Napoleon, whereby over one million square miles of land and the entire possession of the Mississippi were obtained for $15,000,000.

On the same day John Adams died. He was born in 1735, and was the second President of the United States. Adams was a member of the First and Second Congresses, and nominated Washington as Commander-in-Chief, and in politics was a Federalist.

Adams was a tireless worker, and had the reputation of having the clearest head and the firmest heart of any man in Congress, and was a member of the Constitutional Convention. He died on the fiftieth anniversary of American independence, and so did Thomas Jefferson. On July 4, 1828, Charles Carroll, the last surviving signer of the Declaration of Independence, laid the first rail of the Baltimore and Ohio Railroad.

Also Died on Fourth.

Another President died on the "fourth." James Monroe, fifth President of the United States, died on the "fourth," 1831. His famous "Monroe doctrine," which is now recognized the world over, consists in the belief that we, this side of the world, should attend to our own affairs and return the same compliment to the people on the other side by letting them attend as strictly to theirs, so that by this course we should avoid all unpleasant misunderstandings with the people across the ocean.

Monroe's administration was one of general prosperity. It was known as the era of good feeling. During Monroe's administration the famous Missouri Compromise bill came up, which bore largely on the extension, or anti-extension, of slavery beyond certain State limits. Florida was also ceded to the United States during his administration. Monroe assisted his country well during the battles of the Brandywine, Germantown, and Monmouth. Returning from the battlefield, he studied law, and was afterward sent as Minister to France. Jefferson again sent him to France in 1803, when he secured the purchase of Louisiana. At his death Monroe was eighty-three years old.

On the "fourth," 1845, Texas was finally annexed to the United States by a convention of the citizens ratifying the action of the United States Senate. In 1848, on the "fourth," treaty of peace with Mexico was proclaimed at Washington, D. C., growing out of the declaration of independence of Texas and its annexation to the United States. On the same day in the same year the ceremony of the laying of the corner stone of the Washington Monument at Washington, D. C., took place. The ceremony was performed by James K. Polk, president of the United States.

On the "fourth," 1851, Daniel Webster made the oration at the corner-stone laying of the extension of the United States Capitol. The members of what was termed the Kansas Free State Legislature assembled at Topeka on the "fourth," 1856, but were dispersed by United States troops by direction of Col. Sumner. The statue of Washington in Union Square, New York, was dedicated on the "fourth," 1856, and on the same day in 1863 Vicksburg surrendered to Gen. Grant.

Five years thereafter, on the same day, the so-called Burlingame treaty with China was signed at Washington, and on the same day the President of the United States issued an amnesty proclamation pardoning all late rebels not under presentment or indictment in United States courts. On the "fourth" in 1884 a monument to Francis Scott Key was unveiled in Golden Gate Park, San Francisco, Cal.

The above are only a few of the more significant achievements of the "glorious Fourth," the results of which are being felt with increased force in all parts of the world as the years roll by and the love of liberty becomes stronger and stronger.

Drag Locomotive Up Incline.

Scattered through the State of Pennsylvania there are to be found in several places the remains of the incline railways which were once part of the transportation system connecting the eastern and western ends of the State. These have all been long abandoned, but one of the inclines was recently made use of in a novel manner to rescue a locomotive which had fallen over an embankment. It had dropped so far that it was out of the reach of ordinary methods, but a temporary road was made by which it was moved along the side of the mountain a short distance to the foot of one of these inclines. Although the incline is at an angle of about 45 degrees and is 350 feet long, a temporary track was laid up it to the main line, and the locomotive hauled up it on its own wheels by means of the two 50-ton wrecking cranes. A heavy steel cable in five sections was run independently from each crane to the locomotive to permit either of the cranes to hold it on the incline in case of accident to the other.

While you think of it, telephone your Want Ad. to The Washington Herald, and bill will be sent you at 1 cent a word.

LOSS BY FLOODS AND FRESHETS

By Frederic J. Haskin.

The recent devastation of cities and farms by the waters of the Ohio, Missouri, Red, and Kaw rivers places more vividly before us the fact that the people of the United States lose by flood each year an average of $100,000,000. Two weeks ago the 12,000 inhabitants of Armourdale, in Kansas City's packing-house district, had to abandon their homes as the water backed in. Down the valley of the Big Sioux, 100,000 acres of farm land was laid waste the early part of June. Cedar City, Mo., saw its population move out en masse when the Missouri River left its banks on June 14. Two-thirds of the bottom lands within sight of Jefferson City was under water, with wheat fields swamped in from six to eighteen inches of water—a million dollars' loss to farmers. The usually harmless little Shunganunga surrounded Topeka with water on June 13, and wrought havoc next only to that of the flood of 1903.

The Columbia, encouraged by heavy rains and melting snows in its headwaters, rose until the pumping station of Wenatchee, Wash., was carried away, and lumber interests were greatly threatened. At Emporia, Kans., the Neosha, and its tributary, the Cottonwood, brought the worst flood that section has experienced. The far Northwestern flood plain suffered most. Continued rain and snow of early June days set the rivers and creeks rushing from their banks, telephone and telegraph communications were cut off, and trains on the Northern Pacific were tied up for ten days. Anaconda, Butte, and Helena were cut off from the rest of the world, until the old-time pony express was revived to meet the situation. Mines in that region were closed and business operations in the city suspended. At Missoula a giant mill was injured to the extent of $50,000 or more, and communication with Spokane cut off for days.

And so on through the list of floods that have recently swept a wide area of the country in the West, the lowlands of Arkansas and Texas, the valleys of the Ohio, and of the rivers on the Atlantic Slope. In the trail of each overflow has come loss of property in the shape of crops, homes, and stock, and sometimes loss of life. In the trail of all has come a greater and a more abiding loss in the shape of eroded mountain and hillsides, corraded river banks, and silt-choked river beds. And greatest of all has come the great waste of water that rushes unimpeded toward the seas, depriving the earth of the moisture it needs for the summer and fall crops, defrauding the rivers of the water necessary to maintain that even current and depth throughout the years so necessary to the support of that great traffic which the nation hopes to see on her inland waterways.

And the deplorable thing about it, the thing which is a sad commentary on our national thrift and intelligence, is that the greater part of this great waste and incalculable loss is our own fault. The headwaters of these overflowing rivers lie among the mountains which, in the beginning of things, a wise Creator set with forests that were designed to conserve the winter snows and vernal rains, and then release them later through underground springs and rivulets to the thirsty valleys below. The river courses lay through plains set with trees and undergrowth that would hold the water from an overflow and keep it safe in the sponge of fallen leaves, the roots, and old logs, until such a time as the winds or the soil asked it again.

Man, in his misguided idea of prosperity, is denuding the slopes of their trees as rapidly as human and mechanical agency can effect it, and when the snows and heavy rain-water find no abiding places as in olden days, and rush down the valleys to bring death and destruction in their wake, this same man sits and wonders at the dispensation of a Providence that will so interfere with his material prosperity and happiness! As the first settler of the country, the white man began the work of deforestation as a protection to his home from Indian ambush and as a means of acquiring tillable land. Later he did it to acquire needed building material, fuel, &c.

In the three centuries of his progress as an axman and path maker for commerce, he has in his ignorance increased the flood evil from a practically negligible volume to its present startling strength. With Old World lessons in flooded areas below naked hills fresh in his mind, he has, nevertheless, proved little better than his Indian neighbors. It was the Indian who first deprived America of part of her forests. Scientists tell us that the great prairies of the West were once forest lands, from which the prehistoric American burned the vegetation when gathering nuts, destroying trees on countless acres through countless centuries. At the foot of the Appalachians the flames paused, because the vegetation was damper there and less easy to destroy.

With the increase in floods comes the yearly increase in danger to the riparian cities of the nation. The earliest cities were naturally built in waterways to secure the needed transportation facilities. Eighteen of Illinois' twenty-one biggest cities are on rivers; fifteen of Indiana's eighteen biggest ones; nearly all the leading ones of Missouri, and two-thirds of those of Pennsylvania. Over half the populatin of Iowa is riparian, and in Ohio there are not over a half dozen big cities in the uplands. Of 355 cities lying below the "fall line" of Eastern rivers between New England and the 100th meridian, 204, with an aggregate population of about 6,000,000, are river towns. All these cities, through their churches, pray weekly for deliverance from war, pestilence, fire, floor, and femine, and through the exercise of modern invention and discovery have proved their ability to successfully combat all but one. The flood problem has not been met, and it grows bigger every year.

Dwellers in these river towns and in the valleys have learned to expect a flood at periods of three, five, or, at most, ten years. The more intelligent, those who have really awakened to the gravity of the situation, are asking government aid in defending themselves against these floods. They ask for the great storage reservoirs at the headwaters of the principal rivers, where the surplus from thaws and spring rains can be held and sent down the rivers later, or, in the West, diverted to the irrigation projects. They ask for the building of levees and cut-offs on flood plains as a temporary measure, but, above all, they are asking for a preservation of the forests on mountain and hill, and a careful reforesting of all denuded slopes.

The total area of the watershed of the Mississippi is 1,259,000 square miles, and during great floods it discharges 2,000,000 cubic feet of water every second. It carries an alluvial deposit that has formed new land from forty feet deep at Omaha to 200 feet deep below New Orleans, covering 80,000 square miles, a surface the size of the State of Montana, with an average of 170 feet of alluvial soil, and using material stolen, unchallenged, from hills and farm lands. The yearly decrease of the habitable part of the whole earth is reckoned at 3,500 square miles. It goes to the seas in the form of silt, and much of it can be charged to man's carelessness.

Floods come from early spring rains falling on frozen ground, from the forming of sudden ice gorges in streams, from unusual local rainfalls, from landslides, and like phenomena, but the usual ones come from the lack of means for holding the early spring waters on the mountain sides. The floods of the Missouri and Mississippi usually last longest, sometimes from January to July, because of the slow advance of the sun over the widely diversified headwaters. Those of the Ohio, "the most terrible on the earth's surface," are usually precipitated suddenly by the releasing of all the snow at once in the headquarters which lie parallel to the equator. The water released, forms a volume 100 feet high, 600 feet wide, and 300 feet long, to be hurled suddenly at civilization.

Last spring the loss caused by the Ohio floods aggregated over $100,000,000, about one-fifth of the sum that Congress would have to appropriate to purchase the whole Appalachian system of river headwaters, and establish enough reservoirs to hold the spring surplus, and protect billions of dollars' worth of property indefinitely. The Geological Survey shows that the flow of 1,950 square miles, or 35 per cent, of the drainage area of the Monongahela can be stored, and released in dry weather to increase the depth of the channel six feet, and incidentally protect Pittsburg. Forestation there and on other watersheds of the East would cause a storage of from four to six inches more water annually. A minimum of 2,800,000 horsepower is developed in these headwaters every year, and, according to the Geological Survey, 50 per cent or more is available for economic uses and would bring a rental of $28,000,000. By storing the spring floods and releasing them for deepening the water in the river, enormous sums for dredging and improving river beds would be saved. The government has spent $30,000,000 improving the rivers of the Appalachian system and is spending $56,000,000 more, expecting to increase the 15,000,000 tons of freight shipped annually over water routes to a much greater amount.

Floods bear a direct relation to business depression, and the relation to human suffering, property loss, and spread of disease is vital. During the 1907 spring flood, 100,000 working people in Pittsburg were rendered idle for an average period of a week, and many were homeless. The floods of 1847, 1852, and 1883 were followed down the Mississippi Valley by cholera and other epidemics. In the spring of 1903, 2,000,000 acres of land were laid waste in the West and $40,000,000 worth of property destroyed. In 1901 and again in 1902, the Southern Appalachian district lost $10,000,000. In 1883, the loss to Cincinnati alone was $1,500,000, and the Mississippi Valley suffered to the extent of $50,000,000. The flood of 1897 cost the valley $15,000,000, while the flood in the Monongahela Valley cost Western Pennsylvania $1,000,000.

The lesson of the Old World is before us. Southern Europe and Asia are as skeletons of former selves, for each nation in turn has given its forests to misguided civilizers. Northern Africa, once having a climate of our Gulf States, is now 95 per cent sterile. Greece is becoming more barren, Sicily is typhus-infested, France had been damaged to the extent of untold millions before she undertook to afforest her hills. The Rhone, the Po, the Adige, the Ebro, the Guadalquivir, and the Maritza, localities where floods were almost unknown in the world's dim dawn, now annually threaten to depopulate their valleys. Storage reservoirs have recently been tried by various European countries to conserve the flood waters, but all, with the United States, will eventually be driven to the plan of Mehmet Ali, of Abyssinia, who set out 15,000,000 trees on his barren hills over half a century ago to hold the floods and redeem his country.

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To-morrow—National Education Association.

THE MEMORY OF MIGRATORY BIRDS

The residents of North Hackensack, N. J., have a question which they are willing to refer for settlement to either President Roosevelt or to Dr. Long. "What we want to know is this," said the oldest inhabitant, "do birds have memories, and how long do they last? And if Mr. Roosevelt says they haven't, how is he going to explain this?

"Seventeen years ago this spring the Baltimore orioles began coming to North Hackensack and nesting in the old elm tree here. After they had been here a few seasons, we began looking upon them as a sort of town institution and were mighty proud of them. The people in the house nearest that tree put crumbs out every day on the window sill opposite the nest, and every morning down those birds would fly and eat the crumbs, and they were getting as tame as the squirrels in Central Park.

"Some of the folks thought they were the same birds over and over again each year, but seventeen years is longer than I had any notion an oriole lived to be, but there isn't anything in the encyclopedia against it. The rest of the people declared that the birds were the young ones, which had been brought up in that nest and came back to it as soon as they were grown up, remembering the old tree.

"Anyway, last spring that house was sold to some new people, and for a few days there weren't any crumbs, and you ought to have seen the fuss those orioles made.

"But then some one told the purchasers, and the man's wife started putting out bread every day just as the others had always done.

"This year, though, they nearly 'queered' the whole business by remodeling their house, so that where the crumb window sill used to be there was nothing but a blank wall, and where the south wall had been there were three new windows. Of course, they ought not to have changed the house like that until the birds had come back, but I suppose they didn't look at it that way. I said to them one day: 'The orioles won't know where to go for their bread, you've got your house fixed up so,' but they said that that would not matter, so long as the tree was the same.

"That very night there came up a big wind and ripped out the branch that the last year's nest was hanging from, where those birds had builded for seventeen years. Even the new people got some disturbed over that, and as it was about time for the birds to appear they began putting out crumbs on one of the new window sills.

"When the orioles did come, about three days later, you ought to have seen the commotion. They flew around that tree hunting for the old nest. Then they hopped down into the grass and held a big pow-wow about it. They must have decided that they had come to the wrong place, for off they flew and we didn't see anything more of them that day. Then some one, maybe it was I, went and got that old broken off branch with the ruined nest on it, and propped it up against the tree trunk, hoping that that might set them right.

"Next day back they came and flew round the tree and held another council of war. Then the male bird found that nest down at the foot of the tree. And he says to her, 'Didn't I tell you this was the place yesterday?'

"And she answers back, 'That nest last year was up in the tree in that big south branch, and it's all gone now and this ain't the place.' Well, if they didn't say that they acted like it, anyway.

"Then he chirps up. 'Now, if this is our old tree, there be crumbs on the window sill across there.' With that they both flew over to where the old window had been and flew into the blank wall. That gave him an awful jar, and she said, 'I told you so from the beginning. This isn't the same house at all.' But he was a thorough-minded chap, and wouldn't give up so soon. He began to fly around the house, she hopping in the grass after him and telling him how many kinds of a fool he was.

"When he hit that south wall with the three plate glass windows he sort of blinked a while, and then after his eyes got used to the glare he say the crumbs and began to make a great fuss. Finally he persuaded her to come and see for herself and she hopped up on the new sill and began to eat. After that they flew back to the tree and started ripping up the old nest to make another up in the branches where it belonged.

"Anyway," concluded the oldest inhabitant, "you can see from this that people ought to be mighty careful about changing their houses without telling the birds about it first. North Hackensack came mighty near losing those orioles after seventeen years for that kind of foolishness. If that Mr. Oriole hadn't been sort of an obstinate chap they wouldn't be back in the tree to-day."

Dividend Creates Surprise.

Whatever conflict of opinion may have arisen from the decision of the directors of the American Locomotive Company to declare the common dividend on the regular 5 per cent basis, this action was as genuine a surprise as the speculative community had received in a long time. That the dividend would be passed had been the idea of many; that it would be reduced had been the expectation of more. Few had been bold enough to believe that the business of the company during the last three or six months would warrant a maintenance of the regular rate. Even the practicability of earning the dividend on the preferred had been doubted.

Locomotive Without Fire.

One of the most recent inventions in locomotives is the fireless engine now used in Germany. It is employed for shunting work only, and is driven by one man. The tank of the engine is filled with steam from a generating station, and so charged will work for four or five hours. The locomotive boiler, according to the London Globe, is first three-quarters filled with superheated water, and then the steam is admitted and thoroughly mixed. The steam is admitted at a pressure of 170 pounds to the square inch, and it is found that only half an atmosphere of the pressure is lost in transferring from the power-house to the engine. The filling requires eight or ten minutes.

May Issue $15,000,000 Bonds.

Baltimore, June 27.—The Virginia-Carolina Chemical Company, the securities of which are largely held here, according to rumors current in the financial district, is considering an issue of $15,000,000 bonds, part of which is to be used to retire the outstanding $5,000,000 bonds of the Company. The outstanding bonds referred to are 5 per cent collateral trust bonds, due October 1, 1912. They are subject to call as a whole on any interest day at 105, and for the sinking fund are redeemable in amounts of $500,000 annually at 102½ and interest.

STRANGE ENGINEERING.

Great Salt Lake Cut-off Runs Over Deserted Waters.

From the Newark (N. J.) News.

"Remarkable piece of work, that Great Salt Lake cut-off," said a Newark traveler to some friends at their club. "Harriman has run his railroad right across the big pond over a trestle twenty miles long. It's a great sight you get from the car windows when you make the transit. The lake is surrounded by thundering big mountains, some of them a hundred miles away. The mountains are beautiful, but dead—nothing but solid rock, not a tree or blade of grass on them worth mentioning. The level land near the lake is desert, and the lake itself is dead. I looked for yachts, but what is there for a yacht to sail to? I thought there might at least be a fishing launch or two in sight, but there's nothing for people to catch in that brine vat. The water is so full of salts of one kind or another that the ripples seem to stand still, they move so slowly. It was blowing a fifty-knot gale the day I crossed, yet the surface was almost smooth."

One of the traveler's friends, who had heard that the air in Utah is always still, wondered if a fifty-mile wind wouldn't make the operating of trains dangerous on the long bridge.

"Not at all," said the traveler. "Only a day or two before I crossed, one of the Southern Pacific's largest locomotives was blown off the track at Midlake Station by a small tornado. Before the splash subsided the engine came up puffing. The engineer stuck to the helm and the big machine just naturally swam ashore. That lake would float anything. The wonder is that Harriman didn't lay his track on top of the water."

The speaker's friends thought it over.

"About that locomotive affair," said one of them, "you didn't happen to meet the engineer, did you?"

"No, I didn't. You see, because of the altitude of Utah the evaporation of water is very rapid. When the locomotive was about halfway to shore the engineer discovered that his boiler was going dry. The only water to be had was out of the lake. Well, the boiler tubes weren't made for salt water, the way a steamship's tubes are, and just as the cowcatcher touched dry land the engine blew up."

"Of course. And the unfortunate engineer dived for his life and broke his neck on a wave."

Rains Thirty Inches a Year.

From the Scientific American.

The discussion of observations on rainfall made first by Sir John Murray and later by Bruckner and Fritsche permits an estimation to be made of the mean rainfall on continents, which is found to be about thirty inches per year. The rainfall on the ocean is more difficult to measure, but it has been estimated by Supau; and Fritsche, taking account of all the known facts, estimates the mean annual rainfall for the entire surface of the earth at about thirty-six inches. Making use of this number, it is easy to calculate that the total rainfall amounts to 464 million millions of metric tons per year, 1,272 thousand millions of tons per day, 53,000 millions of tons per hour, 883 million tons per minute, or 15 million tons per second.

The Usual Case.

From Tit-Bits.

Brown—About the greatest man who ever lived in this community was Jenkins—broad-minded, big-hearted, and brilliant—and yet he died with all his talents and goodness unsuspected.

Jones—How did you come to find out about it?

Brown—I married his widow.

AMERICAN LEAF FAILS.

Norwegians Turn from Our Tobacco that Spoils in Transit.

One of the largest importers in Norway of American leaf tobacco has brought to the notice of Consul Felix S. S. Johnson, of Bergen, reasons why Norwegian tobacco manufacturers prefer to purchase their tobacco from Germany rather than from the United States, concerning which the consul writes:

"The importer said that during the past few years the American leaf tobacco was dried by means of steam instead of being hung up and allowed to be dried by air; that many cases had been packed while wet, causing fermentation, and shipped to Europe; the rejected cases were then shipped to other European ports to be sold for what price the goods would bring. Most of the Norwegian manufacturers purchased the American leaf tobacco through Bremen commission houses, whose salesmen visit these parts once or twice a year; they have with them samples and allow a credit of some months; if the goods arrive in a damaged condition, or not as ordered, they are refused and shipped back to Germany.

"As large quantities of American tobacco are used in the Norwegian factories, it would be worth the while of American producers or exporters to make direct sales to the factories here, instead of having it to go through the commission houses in a third country. The system of requiring cash payment before shipment is made should be changed, for if goods arrive in a damaged condition the importer has no other recourse but to accept them, very seldom receiving an allowance from the American exporters for his loss."

RAILWAYS IN DENMARK.

Legislative Bodies Authorize Large Development of Traffic Facilities.

A London journal publishes a report from Copenhagen that the Folkething has definitely adopted the bill, already passed by the Landthing, providing for the construction of new Danish railways.

The latter comprise the doubling of the line from Copenhagen to Kjoege, which will considerably shorten the international route via Gjedser, and fifty-one private railways, concessions for four of which may be granted annually. The expenditure to be incurred by the state treasury is estimated at 56,000,000 crowns (about $15,000,000), spread over sixteen years.

During the final debate on the bill the minister of public works announced that a bill would be introduced next session providing for the building of a bridge over the Masnedsund, between Zealand and Falster, to take the place of the present steam ferry, whereby the international route via Gjedser would be still further improved.

The cost of the bridge is estimated at 19,000,000 crowns (about $5,000,000).

MARYLAND'S RESOURCES.

Important Items of Report Filed with Interstate Commission.

The report, in detail, of the revenues and expenses of the Western Maryland Railroad Company, as reported to the Interstate Commerce Commission, for the month of May and eleven months ended May 31, 1908, is as follows:

	Month of May.	July 1 to May 31.
Freight revenue	$365,411	$3,904,759
Passenger revenue	53,013	685,303
All other revenue from transportation	18,327	184,546
Revenue from operation other than transportation	4,125	28,976
Total operating revenues	$440,876	$4,803,587
Maintenance of way and structures	43,567	549,000
Maintenance and equipment	60,516	756,865
Traffic expenses	5,864	68,195
Transportation expenses	143,427	1,558,373
General expenses	11,028	118,940
Total operating expenses	$264,205	$3,050,350
Net operating expenses	176,670	1,753,237
Taxes	16,500	155,350
Operating income	$160,170	$1,597,887

SHORTHAND BY TYPEWRITER

Interesting Invention Comes from British Sources.

System Is Called Stenotypy and the Instrument Carries Only Six Characters.

Before and since Isaac Pitman invented his system of shorthand, says the London Globe, there have been many rival claimants for the blue ribbon of speed and accuracy in writing from dictation. But there is another claim which has never been satisfactorily sustained, viz., the possibility of so perfecting a system in the writing of it that there shall be no difficulty in its being read by every one.

Those who are acquainted with the methods of the expert shorthand writer know in how few instances are his hieroglyphics, when writing at speed, formed with such accuracy that he can safely intrust the transcript of his notes to another hand.

Any method, then, which will render a means of rapid writing less of an untranslatable foreign language to all but the writer himself possesses infinite possibilities, both in commercial life and in the business of the newspaper reporter.

An invention which we have seen in operation, and have done our best by means of fairly rapid dictation to test—dictation, it should be said, at the rate adopted by the average public speaker—apparently possesses these possibilities in no small measure. The system is called stenotypy, and the instrument employed the stenotyper. It is a very clever and ingenious method, applying to the typewriter abbreviated longhand in a style of type reminding one of the Morse code.

Only six signs are used, and only six different keys, and with these and a small and almost silent keyboard worked on the knees, great rapidity is attained. The keys are struck in chords, as on a piano. The mechanism is simplicity itself. There is nothing of a complicated kind to learn; indeed, it is claimed that a speed of sixty words a minute has been attained after eleven evenings' study.

With such rapidity of acquisition shorthand cannot certainly hope to compete, and there is likely to be a wide field of utility for the stenotyper, as it would obviate for those taking up secretarial or correspondence work the slow and trying labors of proficiency in shorthand.

To what extent it will be useful in newspaper work could not be said with any certainty without giving it an extended trial. The idea is that the reporter working the stenotyper could take a verbatim report of a speech, say in Parliament, tear off the typed sheets, and send them to the newspaper office, there to be set up by compositors who had learned to read stenotypy.

If this could be done, all the time and labor of transcript would be saved, and how valuable such a saving would be cannot be overestimated.

Nine Hundred Cubic Feet of Gold.

All the gold mined during the year 1906, says T. F. Van Wagenen, could be packed into a room ten feet square and nine feet high. The value of this gold is about $400,000,000, and its weight is nearly 674 tons. Since the discovery of America the world has mined altogether about 21,424 tons of gold. That part of the globe controlled by the Anglo-Saxon race has been the most prolific in gold, having produced five-sixths of the total amount mined in 1906.

WHY EUROPEANS WIN

Geographical Position Aids in Shipping Business.

FRANCE A GOOD EXAMPLE

Steamers Coming from Havre, Marseilles, and Bordeaux Carry Mails and Receive Subsidy—Emigration to United States Also an Important Factor—American Difficulties.

Much of the trade between the United States and France is carried in a French line of steamers which enter New York, concerning which Consul General Robert P. Skinner, writing from Marseilles, gives the following interesting facts:

For handling Franco-American traffic, of which the portion exported goes very largely to New York, lines of steamers now exist, and provide regular sailings from Marseilles, Havre, and Bordeaux. The Havre line (Compagnie Generale Transatlantique) receives a heavy postal subsidy, and depends upon this and the passenger traffic, as the freight-carrying capacity of the fast steamers is not great. The other lines operating between French and American ports are chiefly freight carriers, but such as are under the French flag also receive premiums from the state, and the Fabre line from Marseilles is maintained, as far as west-bound traffic is concerned, by emigration to the United States.

Line Projected to New York.

In 1906 an all-American line was projected between Marseilles and New York, and one steamer was purchased and put into commission with the hope that the frequently asserted inability of the American flag to compete, without artificial aid, would be this time controverted. After three round trips had been made, and no additional capital in the meantime having come forward to purchase additional ships, this steamer was withdrawn and the experiment abandoned. During a long experience in Marseilles I know of but one small sailing ship under the American flag that has visited this port, with the exception noted.

It costs a great deal more to operate American than European ships, and were this otherwise the capital ventured in a line of modest proportions might well be intimidated by the completely organized foreign enterprises now handling the world's traffic. Steamers are operated in great fleets, with ports of call visited at regular intervals, and the through bill of lading is coming into more and more general use.

The increasing number of German vessels in Marseilles illustrates what is being done. In 1895 German shipping tonnage entered and cleared at Marseilles was only 129,698 tons. It had increased to 170,853 tons by 1900. In 1906 it amounted to 941,192 tons, representing a network of lines in every direction owned by the two great German companies or their subsidiaries. In 1906 the total shipping tonnage of Marseilles was 15,930,939 tons, and it is probable that not more than 2,000,000 tons were represented by tramp ships, and many of these were time chartered by firms who thus improvised lines of their own.

Why Europeans Succeed.

American shipowners cannot afford to feel their way toward success on a small scale, and still less can they afford to do so under existing conditions. We are unlikely to see a great American commercial fleet in European waters until the standard American wage has been reduced to the European level or until we find some means which will make up the difference, backed up by sufficient guaranty that this means can be depended on as long as it shall be needed.

The geographical situation of the United States compels most American navigation lines to depend upon traffic between the port of departure and port of arrival, and when any great difference in the bulk of merchandise imported and exported exists freight rates must be averaged to get back operating cost. European sea powers are much more favorably located in this respect than the United States.

The great English lines to the Orient, for example, sail from London, and call at Marseilles, sometimes Naples, Port Said, Aden, and half a dozen or more East Indian and Oriental ports, discharging and receiving freight, thus managing to keep the vessels' holds full, more or less, all the time.

Railroads in Canada.

From the Brooklyn Standard-Union.

Twenty-five years ago there were 2,000 miles of railroad in Canada. To-day there are 23,000, with three transcontinental lines. The total trade of this part of the British Empire has grown from $34,000,000, in 1851, to $556,000,000 at present, and the great impulse has come in very recent years. Manitoba raised 47,000,000 bushels of wheat in 1903, but last year the crop amounted to 87,500,000 bushels. While the population of Canada is but one-seventh that of the United States, that country can rightly claim to be the fairest flower, with the most glowing prospect, of any of England's dependencies.

Minnesota Fifty Years Old.

Minnesota is just fifty years old, and its development during this period has been marvelous. During the half century the population of the State has grown from 150,000 to 2,000,000. The wealth of its people was aproximately $30,000,000 fifty years ago, and the assessed valuation of their property now is $1,000,000,000, or $500 per capita instead of $200. There are now more cultivated farms supporting prosperous families than there were men, women, and children in the State fifty years ago.

Runs No Cars on Sunday.

The Winona (Ind.) Interurban Railway is unique in many particulars. In the first place, it is the only electric line in this country which is not in operation on Sunday, and despite this fact, the business done on the line is as great as any other line in the State in proportion to the mileage. The officials, with the exception of two, serve without pay, and the profits of the road are entirely devoted to the support of the Winona Technical School, at Indianapolis. The road bed and equipment of the lines are excellent, and it will compare favorably with any road in the State in all particulars.

Railroad Expansion in Africa.

No longer than ten years ago the Cape to Cairo railroad project of Cecil Rhodes was laughed at as a dream, but the present moment finds it extended 2,000 miles northward from the Cape, and prospects of the immediate further extension of this southern section are bright. There is only a little engineering dispute as to the more desirable of two proposed routes. The first step in the construction of the northern section is the building of the great steel bridge which is now being thrown over the Blue Nile, 1,600 miles south of Cairo. This bridge will greatly simplify the transportation troubles to and from Khartoum and will open