

CENTENNIAL OF THE VOYAGE OF THE CLERMONT

Robert Fulton, a Pennsylvania genius, first steamed his boat up the Hudson, August 7, 1807. Practically the beginning of modern steam navigation

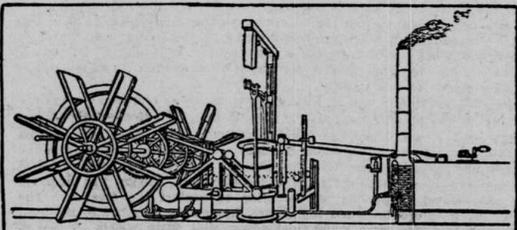
Philadelphia.—While New Yorkers were jubilating over the centennial of the historic journey of Robert Fulton's steamboat *Clermont*, which made the trip from New York city to Albany over her own steam, on August 7, 1807, Pennsylvanians have a more than ordinary interest in the honors to be paid to the inventor, for he was a son of this commonwealth, and it was here that he obtained his first ideas of a method of propelling boats by the use of steam.

In some quarters Fulton, rather incorrectly, has been lauded as the inventor of the steamboat. As has been well said, neither the steam engine nor the steamboat was, in the strict sense of the word, invented. Fulton was not the inventor of the steamboat, but neither can any other person be so characterized. The steamboat was a good many years being invented and there were many hands at the work. This fact, however, does not lessen the brightness of Fulton's achievement, for, had he never been connected with the inauguration of steam navigation, he showed so many other evidences of mechanical inventiveness and of artistic effort that it is extremely probable that his name would not be forgotten.

Projects Before Fulton's.

More than 100 years before Fulton began his experiments the idea had possessed inventors in other parts of the world. In 1690 Papin proposed the use of a steam engine for the purpose of propelling boats through the water, and exactly a century before the *Clermont* made its famous run the inventor actually constructed such a boat, which he used on the River Fuda, at Cassel. The boat was of rude construction, and the method of propulsion consisted of raising water by means of a steam pump, which water was then applied to a water wheel and drove a set of paddles on the same shaft. What influence this invention might have had upon the commerce of the world will never be known, for it was not allowed to prosper, being destroyed by some ignorant fanatics.

In the century which intervened there was considerable talk of applying the steam engine to the use of boats. Nothing came of it in a practical way until an American blazed the way. The first of these pioneers was also a Pennsylvanian—William Henry, a native of Chester county, but at the time of his experiment a resident of Lancaster county. About 1763 Henry, who had just returned from a visit to England, took up the subject of a steamboat. He constructed a small boat, or rather attached an engine to an old bateau. This consisted of a pair of paddles, and with this



Engine of the Clermont

primitive contrivance he boldly essayed to steam down the Conestoga river. From what can be learned of the attempt, it was far from being successful, but by an accident the boat was sunk, and the steamboat had to wait another quarter of a century before it was to be given practical shape.

Distinction Due Fitch.

This time it was a resident of Philadelphia, John Fitch, who from all appearances lacked only support to be known for all time as the man to whom modern steam navigation is due. Fitch had an adventurous career. He was born in Connecticut. At the time of the revolution he was a watchmaker at Trenton, but the British destroyed his stock and he is

WEIGH MAIL ON CARS.

Done Every Four Years as a Basis for Railroad Contracts.

The railroads are paid for carrying the mails on the basis of a contract running four years. Once during this period additional men are put on the mail cars, whose duty it is to weigh all mail received and delivered at each station.

The figures thus secured are assumed to represent an average of the amount of mail carried on that route, and become the basis of the contract. Four years later a new period of weighing is begun, and the contract is revised in accordance with the new figures.

The United States is divided into four contract districts, says System, and the weighing is carried on simultaneously in all parts of a district. The following year some other district is weighed, and thus the circuit of the country is covered in the four year period.

It is in the tabulation and compilation of the reports sent in by these officials

next found as an officer in the Continental army. The Indians took him prisoner, and he was removed into the Northwest territory. He made a map of the then little known country west of the Alleghenies, and subsequently came to Philadelphia. Here at one time he lived on Second street, near Vine, but began his inquiry into steam navigation at his place at Neshaun.

With Fitch the idea was not original any more than it was with any of his predecessors, or with those who followed him. While he was engaged as a civil engineer in the southeastern part of Pennsylvania, he came into contact with William Henry, and if he did not see the latter's invention he at least met him and heard of it. At any rate, in 1787 Fitch did construct a steamboat which he set in motion on the Delaware river.

Fitch's Scheme Languished.

Two years before Fitch had appeared before the American Philosophical society and showed a model of a steamboat which he intended to construct, and in 1790 he had a steamboat on the river that could make eight miles an hour, and was advertised to make regular runs between this city and Trenton three days a week.

A Virginian, James Rumsey, at the time Fitch was requesting various state legislatures to grant him assistance, claimed to have invented a steamboat prior to that of Fitch. Rumsey's claim, however, was discredited, even by his own state. Fitch's lack of support and the coolness with which the country viewed the project, although one small boat had made no fewer than 21 advertised trips without accident, permitted Fitch's scheme to become quiescent.

Fulton never disclaimed the obligation he owed to Fitch's steamboat. At the time the first Fitch boat was shown here Fulton was an apprentice to Edward Duffield, a silversmith, who was in business on Second street between Chestnut. The old frame building, lately numbered 121, was standing until 25 years ago. It is only natural to infer that the active young apprentice should have enough curiosity to see the invention, especially as he was something of an ingenious mechanic himself.

Robert Fulton's Career.

Robert Fulton was born in Little Britain township, Lancaster county, November 14, 1765, his father being a native of Kilkenny, Ireland. The Fultons moved to Lancaster city when Robert was an infant, and it was in the schools of that city that the ingenious young inventor received his education. He is said to have known

William Henry, and to have visited his home to see some of the earliest efforts of Benjamin West, of whose painting he was, as were all artistically inclined Americans in those days enamored.

At the age of 17 Robert was brought to Philadelphia and put as an apprentice with Duffield. There he finished his trade, but his artistic instincts getting the better of him, he decided to shandon his trade and take up art. Although he had a widowed mother to support, he managed in some manner to save enough to take him to London, where he placed himself at the feet of his master in painting, Benjamin West.

As a youth he showed talents in many directions, and was undoubtedly

weighers that the system devised by Carle C. Hungerford of the railway mail service is employed.

"The weighing of the mails for the purpose of awarding the contract is not a new departure," said Mr. Hungerford. "That was part of the old system. The mail weighers have cards on which they record the weight of the mail taken on at each station on the route, and also the weight put off. Another card records the weight on the return trip between the same points.

"This process of daily weighing is kept up for 90 days, and the totals must be footed at the end of each week and the end of the whole period. Formerly each day's report was entered by the clerks on a large tabulating sheet three feet long and two feet wide, and figures had to be totaled vertically and horizontally.

"The size of the job can be seen when I tell you that the report of just two trains on a long run for the period of 90 days took up 13 of these large sheets.

"The work kept 25 men busy in the Chicago headquarters during the time

something of a genius. It is told of him that at the age of ten years he had made for himself his own lead pencils. They were crude affairs, of course, but at that time they were nearly as good as could be purchased. At 14 he devised a skyrocket, and had invented an airgun. His biographer says that it was at this time that the idea of steam propulsion for vessels first took possession of him, and that he actually made a model of a boat that could be propelled by means of paddles.

Experiments on the Hudson.

After he went to England, where he studied painting, in which art the numerous examples of his work extant show him to have been proficient, he went to France. There he became busy on a plan for steam navigation, which he succeeded in getting presented to the first consul; but the French government was too much preoccupied to pay much attention to the young American's representations. A friendship, however, most important for the future of steam navigation, sprang up between Fulton and our minister to France, Robert R. Livingston, formerly chancellor of the state of New York. Livingston had become interested in steam, and had built a vessel and made experiments on the Hudson. In 1798 the New York legislature gave him a monopoly of navigating the waters of New York by steam, provided that within one year he should propel by steam a vessel of 20 tons four miles an hour. This he failed to do, but his interest in the problem never flagged. The two men formed a partnership and made an experiment on the Seine, which, however, proved a failure. Then they decided to make experiments on the Hudson, and the New York legislature granted another potential monopoly similar to that granted to Livingston.

Another vessel was built at a shipyard on the East river, according to plans carefully worked out by Fulton.



ROBERT FULTON
The *Clermont*, as she was called, was 150 tons burden, 130 feet long, 16 feet wide and four feet deep. Her engine had a steam cylinder 24 inches in diameter, her wheels were 15 feet in diameter and uncovered.

Description of the Voyage.

Here is Fulton's description of the voyage which revolutionized navigation, in the form of a letter to the American Citizen:

"I left New York on Monday at one o'clock, and arrived at *Clermont*, the seat of Chancellor Livingston, at one o'clock on Tuesday—time, 24 hours, distance 110 miles. On Wednesday I departed from the chancellor's at nine in the morning and arrived at Albany at five in the afternoon—distance 40 miles, time eight hours. The sum is 150 miles in 32 hours, equal to near five miles an hour. On Thursday at nine o'clock in the morning I left Albany, and arrived at the chancellor's at six in the evening. I started from thence at seven and arrived at New York at four in the afternoon—time 30 hours, space run 150 miles, equal to five miles an hour. Throughout my whole way both going and returning, the wind was ahead; no advantage could be derived from my sails; the whole has therefore been performed by the power of the steam engine."

Memorial to Fulton.

The task of erecting an adequate monument to commemorate the great inventor is in the hands of an association of public-spirited men, incorporated under the laws of New York, known as the Robert Fulton Monument association. The association has determined that the monument shall take the form of a water gate and mausoleum to be erected at One Hundred and Sixteenth street and the Hudson river. A bill has been passed by the legislature making the necessary grant of land. It is intended to provide a place where distinguished foreign visitors to our shores may be fittingly received by the municipal, state or federal authorities; in a word, to give New York a front door. It is expected that ground for the construction will be broken on the next anniversary of Fulton's birthday, November 14.

of the weighing, and for three months afterward. Then there was liability of error in the footings.

"So we developed the plan of doing away with the tabulating sheet altogether. We use the adding machine and make its record strip the permanent record of the weights. Instead of first entering the figures on the large sheet and then transferring them to the machine, one man reads the amounts from the weighing report and another operates the machine.

"The figures for a week are kept together, and totals taken for each town. At the end the totals are taken for the whole route.

"The cipher in the middle of the column marks the dividing line between the columns for mail put off the train, and mail taken on. At the end of the weighing period the totals for the various weeks are footed on the machine.

"We can do the work with half the clerks that were formerly needed. It takes three months to finish the reports after the weighing closes. Here before we had to keep 25 men at work tabulating and adding; now half the number can do the work."

For Midsummer

By Julia Bottomley



Some women have what the French call "the sense of clothes," so much more correctly discriminating than others, that they are able to command a most respectful attention from their fashionable, and sometimes envious sisters. Hard indeed, is it for the women of wealth and fashion to find herself beaten by some talented rival of less means, and perhaps of less beauty, whose exquisite appearance is brought about by an eye for lines, color and detail in dress. It is these that count, and one should never make the mistake of supposing that money can supply the lack of them, except in those instances, when it is content to purchase clothes of some one's else choosing, and even thus lose individual distinction. For only the woman who knows how to choose the proper costume, knows just how to wear it properly.

These gowns illustrated here are moderate in price, and may be copied at a very reasonable expenditure. They leave nothing to wish for, being beautiful, and perfectly adapted to the purpose for which they are made.

Fig. 1.—Gown of blue and green voile is an indistinct plaid, with decoration of dark green taffeta silk and a fancy braid in black, having touches of white on edges. Cream colored lace and small decorative medallions of gold are introduced in the bodice.

Fig. 2.—Hat of black milan braid, appropriate for wear with a variety of gowns. The shape is edged with white braid, and supported by silk wires. A group of pale blue wings is mounted at the front with a touch of La France roses, set close to the crown. Blue ribbon trims the band.

Fig. 3.—Hat of silk braid with simple trimming of three quills, made in shades of grey. This is worn with a street gown, that is the illustration, being of black taffeta silk.

The pictures are from The Illustrated Milliner.

FOR AUTUMN GOWN

Paris Correspondent Sends Description of Charming Gown in Simple Design.

An idea which could be well reserved for an autumn gown is carried out in a simple but rather heavy rose pink silk tulle, trimmed with white silk soutache and the fashionable touch of black, writes a Paris correspondent. Three inches from the border of the long, round skirt is a band of braiding eight to ten inches deep, with the upper edge arranged in points. The fitted redingote buttons in a curved line across the bust and fastens with two black satin buttons and loops. This part of the garment cuts off in little points at the waist line so that the skirts open a good deal; they fall in points in front and are longer there than behind. The large armholes are edged with a fold of black and the pelerine sleeves, which fall in points well over the elbows, are covered with braiding, with the exception of a four-inch band about the edge. A line of black edges the braiding, so the plain part appears like a set-in border, and it is decorated with black buttons and loops.

FOR CHILD'S FROCK



Child's frock of, white batiste elaborately made with tucks, bands of embroidery and frills or valenciennes lace.

The bretelles are made in the same way; the collar and girdle, the latter prettily knotted, are of soft satin ribbon.

Big Black Bow is "Parisian."

A recent cry from Paris proclaims the newness and smartness of large black taffeta bows on millinery, these bows monopolizing the place of flowers and feathers. A white chip hat, the brim turning slightly up from the face in front and drooping in the approved form at the back, had the brim bound with black ribbon velvet, and carried enormous masses of bows of rich black taffeta as its sole exterior decoration, a tenderly tinted pink rose giving a gracious touch of color beneath the brim at the left.

SOME MODISH HATS

Styles Now Being Worn Possess Real Beauty—Feathers Are Giving Place to Flowers.

The picture that stands for true elegance has a wide limer brim that droops into the most bewitching lines, showing the hair and brow in all their beauty. Its chic trimming is a band of velvet, taffeta or ribbon the height of the crown and large roses or peonies then set into a wreath, each a flower apart showing the band between. Feathers continue to give place to flowers, and have no longer the same monopoly, as in the seasons past. The newest hat, in the sense that it stands for midsummer wear especially, is of tulle-dotted net, or all-over lace shirred into a straight brim, sailor shape, like the fashionable straws, and is trimmed with transparent lace bows, three pairs across the front, increasing in width. This hat to be smart is especially hand-made. Cheaply made it shows what it is, thereby undesirable. The bows should be made of a wide, fine lace insertion with a narrower one on either side to reach the width of ribbon and must have a fine edging of lace upon the edge for a finish. These bows are wired softly, but the art required lies in the posing and shaping of them. A white maline plaited cachepeigne is needed at the back to fill up the space unless one fills it up with hair puffs and short curls.—Vogue.

Sweet Odors.

The scent used to fill sachets is, of course, a matter of personal taste. The fragrance of orange blossoms is thought appropriate for a bride's sachets, and orris and violet mixed together fill the majority of those that mere mundane mortals lay among lingerie. The scent of jessamine is particularly fashionable this season, and many affect it altogether for personal use. Soudalwood has its particular adherents, although it is not generally popular. It is used, as well as violet, for combining with orris. In fact, to combine sachet powders, striving to get an individual result, is the after charm of making their attractive coverings.

Useful Coffee Coat.

The mission of the coffee coat is to give one a garment for dressy wear in the house. And the woman who is clever will provide herself with half a dozen to wear in case of emergency. In the summer time such a coat is positively priceless, for it can be worn with one's old waists and odd skirts, and it has the merit of always looking dressed up. In case of a sudden call, one can dash into one's coffee coat and come into the drawing-room looking cool and well dressed. So much for the famous little coat, which is holding the whole of fashionable London in its spell.

Gowns of Crêtonne for the Country.

For those who like something odd for the country there are amusing little costumes of flowered crêtonne, trimmed with English embroidery and some touch of black. These are prettiest when cut out a good deal at the neck and worn over a lace gilette.

Mrs. Bailey's Mistake

By LILLIAN GREY

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One June afternoon there was a gentle knock at the hall door of a certain farmhouse in the back country. "You go to the door, Dell," said her mother; "I do hope it ain't nobody to hinder us!"

The girl obeyed, and on opening the door found an elderly man standing in the vine-shaded porch.

"Will you be so kind as to tell me if I am on the direct road to Clifton, and also how far it is?"

"Yes, sir, and it's about three miles."

"Three miles yet? Dear me! And is there any hotel or place where I can get a meal on the way?"

"No, only farmhouses like this."

"Well, can I get something here? Even a glass of milk will be very acceptable."

"Tell him we don't keep a board-in-house!" called a sharp voice from the kitchen.

The girl's face flushed, and she replied:

"If you'll just wait a minute, I'll ask about it; we're very busy just now."

She went down the hall and pulled the door shut after her.

"We might give him a lunch, mother; he don't look like a real tramp, and he seems so warm and tired out."

The mother impatiently dusted the flour off her hands and stepped into the hall, followed by two older girls than Della.

"We ain't in the habit of givin' meals to strangers; we've got work enough besides that!" she said.

"I presume you are a busy woman, but I expected to pay for whatever

expressed his thanks, and stepping over to the open door of the kitchen where Dell stood, placed a coin in her hand, saying: "Here's a trifle for your kindness in waiting on me, my little friend."

He strode hastily out and away, and the girl in her surprise let the coin slip from her fingers, when it went rolling across the door stone and out into the grass. They all dropped their work and came out to help look for it, and Kate, the eldest of the sisters, found it.

"Gold! as true as I'm a livin' sinner!"

All crowded around, and the mother reached out and took it in her eager hand.

"Yes, it's a ten-dollar piece, I do declare! You're in luck for once, Dell!" but the girl was flying down toward the gate. "Child! come back! why, I do believe she's crazy enough to try an' give it back!"

"That had been her first thought, but the wayfarer so newly rested and refreshed, had made wonderful speed and was out of sight.

"Oh, dear! he's got away over the hill, and he must have made a mistake. Here's a trifle," he said. If I hadn't dropped it, I should have had time to return it to him, but now what can I do?"

"Why, keep it, of course, you little goose!" said one sister.

"Oh, girls!" gasped their mother. "I do believe with all my heart an' soul that was your Uncle Oliver!" and in the shock of the terrible conviction she sat herself down flat on the kitchen floor.

"Good grashus, mother! you can't mean it?"

"I'm—I'm deathly afraid it was! an' if it's rel'y him, we're outdone forever!"

"An' to think how I talked to him," moaned the mother rocking herself back and forth.

"Do you s'pose he'll come back again, mother?"

"Back? No, indeed! We've lost him forever—money an' all; an' what will your father say? He's got sech store by his comin' ever since we got that letter about it, an' so have I!"

"Don't you think pa had better go over to the village and see if he can find him? I guess he could coax him to come back."

When Mr. Bailey came in the appearance of the stranger had to be minutely described again and again, and then he said:

"Yes, Uncle Oliver always was a drollful quiet, soft-spoken sort of a man; but yet I can't seem to think it could have been him—though I do suppose he might have grown round-shouldered an' gray in 20 year. But why didn't you ask him right in?"

"'Cause we never had a suspicion till he was clean out of sight, an' we see the gold piece he give Della; then we put some bits he said along with that; an' yet we don't know for certain, only we're afraid 'twas him."

Dell went out when her father was harnessing and handed him the gold coin.

"If you find the man, and he isn't Uncle Oliver, I want you to give him the money, for I know he must have mistaken it for a silver piece, and tell him he was perfectly welcome to the little I did for him."

Toward evening Mr. Bailey returned with the same person who had so unexpectedly called on them. The men came in the house together, and the duly-presented uncle, whom he proved to be, was very smiling and gracious, and seemed to all appearances totally oblivious of the fact of his previous call; but when Mr. Bailey went out to care for the horses, his wife began a profuse and abject apology, seconded by her two elder daughters.

But the good uncle begged them not to distress themselves, and said that he bore no malice, and it was partly his fault in coming in such a manner, though he had no suspicion at first that it was his nephew's house; and then giving them no chance for further speech, he went out to tell how glad he was to see his nephew, and how many changes had taken place in the village, and so on, until Mr. Bailey came in, and then the mother and daughters proceeded to set the supper table loading it with a profusion of good things, but it was a very subdued circle who sat around it.

But in the course of the evening he found a chance to slip again into Della's hand the ten-dollar gold piece, saying with a genuine feeling:

"It was no mistake, my dear child, although I was not positive that you were my niece until I made inquiries at the village; but you were kind and tender hearted when you thought me a common wayfarer—as indeed I was."

BASE-BAWLED NURSERY RHYMES

(By a fanatical fan.)
Jack and Jill
Went up the hill
The ball game for to see.
They sat up there
Because this pair
Lacked the admission fee.

Rock-a-bye, baby,
On the tree-top,
When the wind blows the cradle will rock;
When the bough breaks
The cradle will fall,
And next time baby will know better
Than to climb up there to watch
A game of baseball.

Little Bo-Peep
Has lost her sheep,
And I know where she'll find them
(This poor little dame).
Up at the ball-game,
With a lot of "rooters" behind them,
—Judge.

"No'm; I'm tired of work!" said the man, meekly. I was calculating to rest a spell.

At this one of the girls laughed outright, and said with a toss of her head:

"I'm tired of work, too, and I don't mean to do much more of it. We expect a rich uncle here, an' I'm plannin' to be his favorite niece an' go an' live with him when he settles in the city, an' be his heiress. That's the kind of a life suits me!"

"He'll soon get sick of you, an' choose me instead!" said the other girl.

"No fear of that. I'm the oldest, an' I mean to keep on the right side of Uncle Oliver. I've been half wild thinkin' of it."

Just then Dell came in with a dish of garden strawberries which she had hurriedly picked and hulled, and covering them with sugar, placed them before him.

"They are of my own cultivation," she said proudly, and a bit defiantly; "they are lovely, and you are welcome to them!"

"They are beautiful indeed, and you are very kind to offer me such a treat!" answered the man, looking up at her sweet, flushed face and then at her sisters, whose countenances bore such unmistakable signs of scorn and displeasure.

"Dell is always such a fool!" said one of them in an audible tone.

The meal was finished even to the last strawberry, and the man arose and placed the silver quarter on the table beside his hostess, very politely