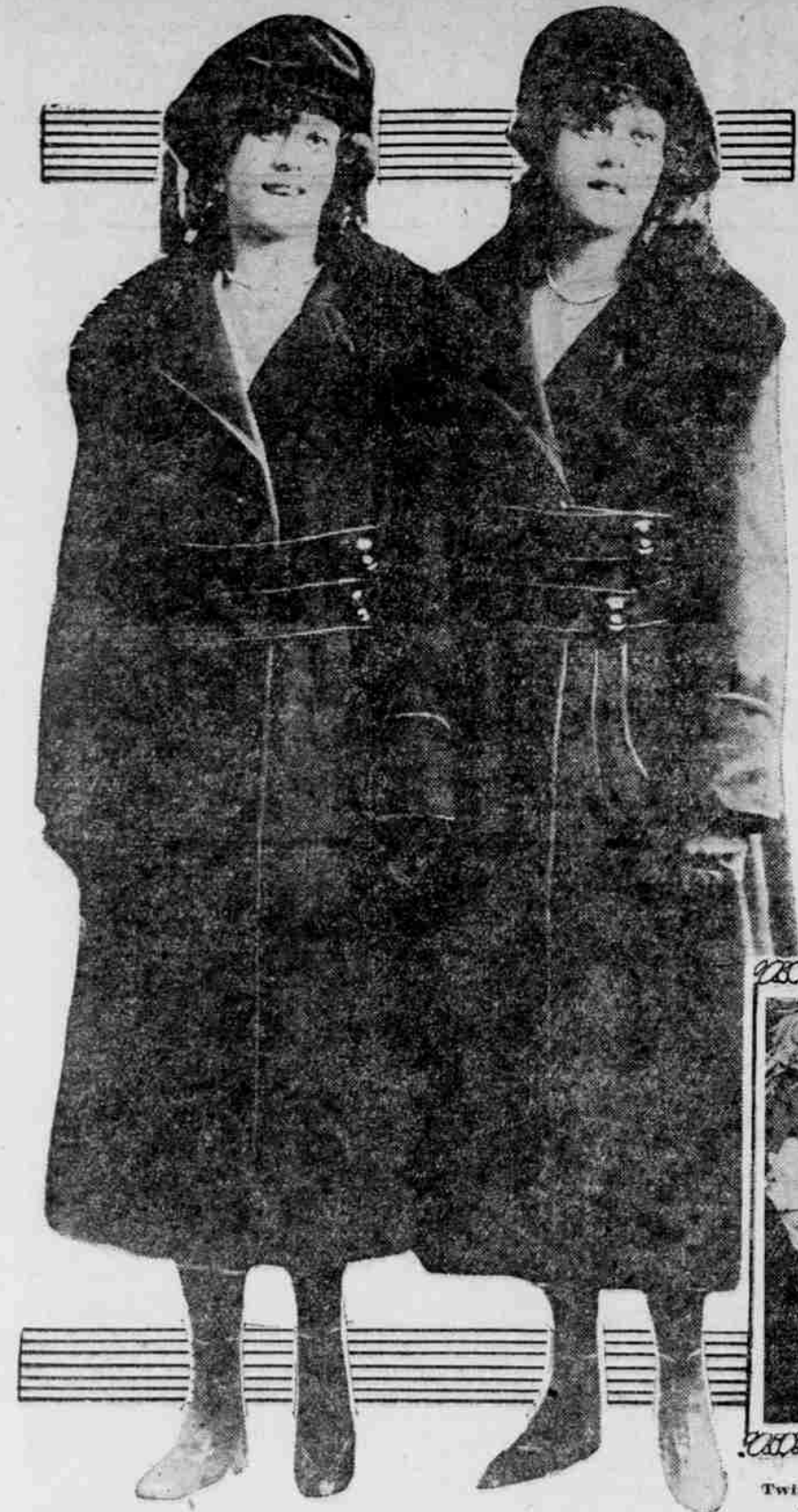


Curious New Discoveries About Twins

Science Is Able Now to Explain Why Some Twins Cannot Be Told Apart, and Why Some Do Not Bear Even the Slightest Resemblance to Each Other.



These two pretty sisters represent the type known as "identical twins." Even their best friends cannot tell them apart when they meet.

BY JOHN SHELTON.

ACCORDING to Hoyte, two of a kind are worth more than two that are dissimilar. From the human interest point of view, the same rule seems to apply to babies.

Note, for instance, the announcement of the arrival of a new-born baby. Father, puffed up with justifiable pride, trades cigars for congratulations. Mother and the other children are happy over the arrival of just one more little baby in the home.

But, observe the difference if it's twins! Father proclaims the news from the house-tops. Mother feels that she has been doubly blessed. No one baby, no four brothers or sisters born at different times, could create as much combined excitement, envy and neighborly interest as the arrival of twins in the family.

Twins, as the average layman's limited knowledge of the subject enables him to understand, are always a surprise. Nobody orders them; nobody expects them, and when they arrive they are doubly welcomed in spite of the unpreparedness. And twins, as twins, always remain more or less of a mystery.

With the intention of gathering as much new data as possible about twins, the American Genetic association issued an invitation about 15 months ago to grown-up twins and the parents or guardians of young twins all over the world to communicate with the association. Responses were received from no less than 600 twins and parents of twins, many of the letters being accompanied by exceedingly interesting photographs of twin babies, twin young men and twin young women, twin old men and twin old ladies. And the Journal of Heredity, the official organ of the association, has now issued a special number devoted entirely to twins. In this issue Professor C. H. Danforth of the department of anatomy, Washington university of medicine, Harris Hawthorne Wilder, professor of zoology, Smith college; Professor Frederick Adams Woods, lecturer on biology, Smith college; Professor Fred Technology, and other distinguished writers on subjects dealing with eugenics and heredity, tell of many new and curious discoveries about the why and the wherefore of twins.

Twins, it appears, are of two or more kinds. There are, for instance, identical twins described by Professor David Fairchild, the well-known government botanist and president of the American Genetic association, as the only human beings in the world who have exactly the same heredity.

"If we can find out," Professor Fairchild declares, "the characteristic ways in which identical twins remain the same throughout life, the qualities and habits and mannerisms which persist unchanged in them both, in spite of their living in entirely different surroundings, we shall know more than we do at present about what attributes are heredity and fixed and what are those which we can hope to modify by environment and education."

Differences Between Twins.

Identical twins are always of the same sex and always resemble each other to an extraordinary degree throughout the whole of their lives. Fraternal twins, on the contrary, do not resemble one another and may not even be of the same sex.

To explain the difference between the two kinds of twins Professor Fairchild uses, by way of illustration, two apple seeds taken from one apple. The seeds may be planted and permitted to grow into large trees, each presumably capable of bearing, in its turn, large, luscious apples of the same variety as the parent tree. When the two trees have reached the fruit-bearing age we are surprised to find that one tree yields an annual crop

of splendid eating apples. The other tree bears apples which are too sour, or bitter, to eat. Even the two trees themselves may be distinctly different; one may grow tall and graceful, the other being stunted and spreading. The explanation offered is that they may have had different heredities at the very start. The two seeds, although they came from the same apple, were dissimilar in characteristics; so unlike, in fact, that one developed into a beautiful tree yielding sweet and rosy apples while the other tree was gnarled and stunted and yielded sour apples which even the boys of the neighborhood didn't consider worth stealing.

"Supposing, however," Professor Fairchild continues, "we were to divide a single seed from an apple and that these two exact halves could be planted and that they grew, would we not then be able to produce two apple trees which looked alike and which, when they bore, had almost exactly similar fruits on them?"

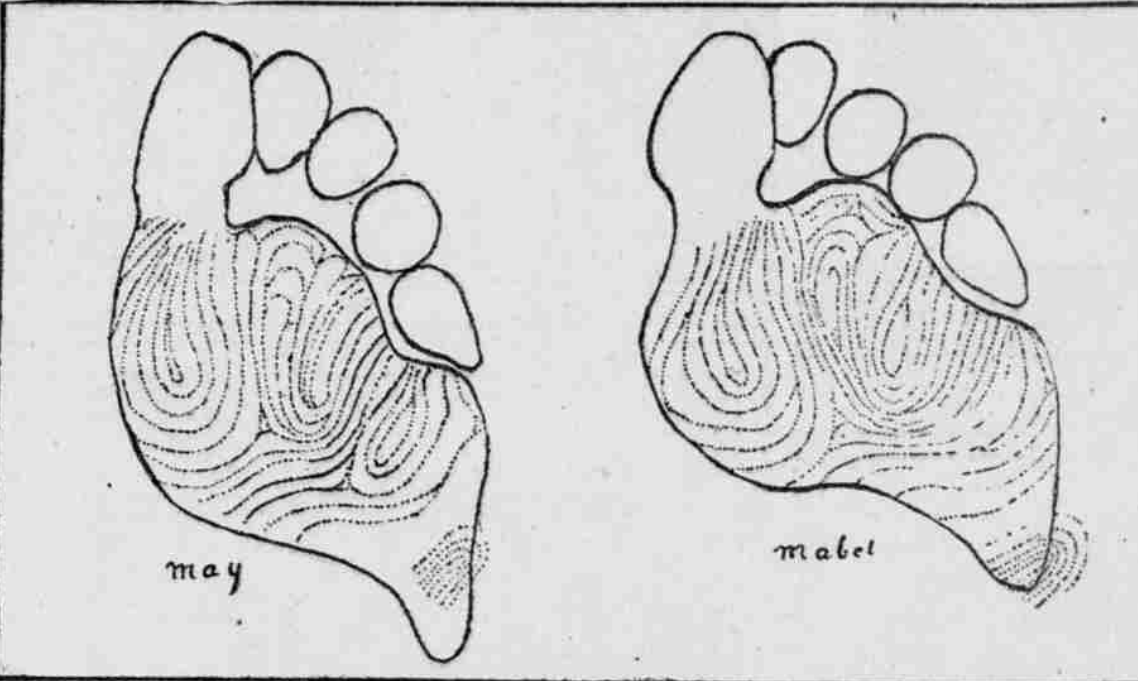
Two such trees, growing alike, looking alike and bearing apples which were similar in coloring, size, shape and taste, could be called identical trees, just as similar twins are called identical twins. And the two unlike apple trees, grown from two seeds taken from one apple, could be called fraternal trees, just as some twin children are known merely as fraternal twins.

It may be argued that so-called identical trees, each starting from only half a seed, cannot grow. That is quite true. They cannot. They were introduced here merely for purposes of illustration. With so-called identical twins Dame Fortune deals more kindly, although their prospects may have seemed no better than those of identical trees. The twins do grow. Again it may be argued that identical twins will lack in mental and physical vigor. The best answer to that is found in the eminent Grosvenor twin brothers, Gilbert and Edwin. They are identical twins and similar in almost every respect. During their whole lives they never have varied more than one pound in weight. In college their grades never varied more than one-tenth of 1 per cent. Their tailor says that one of the twins has a short left arm and the other a short right arm. Nothing but a most exact measurement would reveal this though.

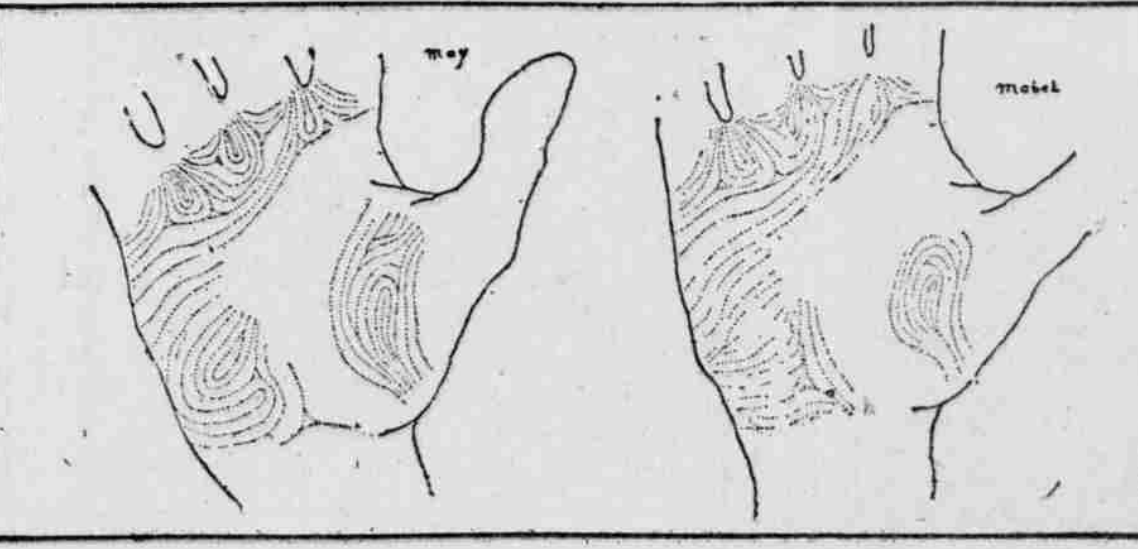
Although absolutely dependent upon



Twin sisters, Lettie and Linda Johnson, as babies and youngsters not yet in the "teen" age. They were very much alike in every way, even at the younger ages, their parents and friends noted.



Tracings from sole prints of the twin sisters, "May" and "Mabel."



Tracings from palm prints of two "identical twins," "May" and "Mabel," show how hand prints differ even in twins.

glasses each can wear the other's. Their illnesses have often coincided. They always have been devoted friends and frequently their letters cross. Most of their tastes are sim-

ilar, but they never agreed when it came to girls.

As students at Amherst college they divided the highest honors in the classroom and on the tennis field. To-

day one is a director in the National Geographic society. The other is a special assistant to the United States attorney-general and partner in one of the most important law firms in

strollers. What is called "reveling" in the restaurants is, however, not in evidence. The patrons sit and listen to the music, eat or sip their wine or other drinks, but, as an American observer put it, there are no high jinks.

Liquor Indulgence Universal.

It is considered that a prohibition movement in Argentina would find a very strong sentiment to overcome. Recent dispatches from the United States telling of the intention of North American prohibitionists to invade South America did not appear to cause much concern here, where indulgence in some sort of alcoholic liquor is almost universal. The newspapers ignored the dispatches editorially. One entire province, Mendoza, is devoted to the wine industry, and just as in Latin-American countries of Europe, the drinking of wine seems to be regarded almost as natural as the drinking of water.

There are probably as many bars in Buenos Aires in proportion to population as there were in New York in pre-prohibition days. In these bars thirty Americans just arrived from the United States find familiar drinks. The "Manhattan," "Bronx" and "Clover Club" cocktails are as well known by the same names as in New York. The "Martini," however, is here called a "San Martin," which is the name of one of the patriots of Argentine history.

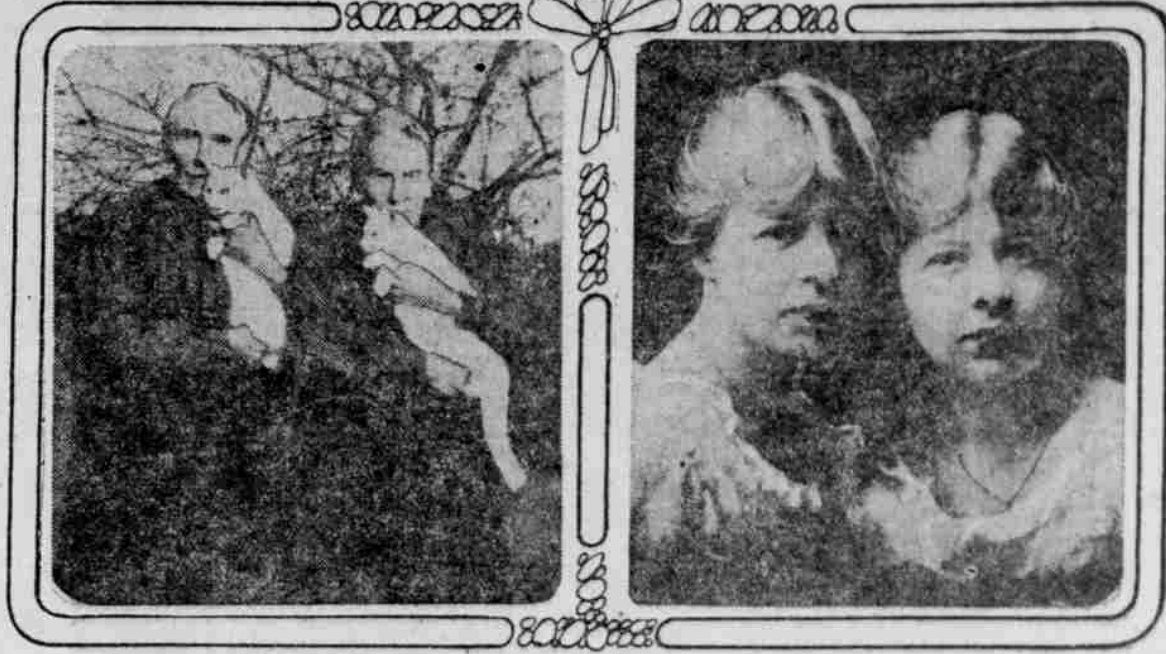
Sailors Welcome Peals of Big New York Bell.

Tower Clock, Marvel of Mechanism, Sounds Ship Time.

As seafarers enter New York harbor and sail past the famous Battery, they are welcomed every half-hour by a big bell in the tower of the first dock on the New York side of North river. It is a welcome sound, especially to sailors and seafaring men, because it strikes ship time. That is, it strikes one at 12:30 A. M. and one more every half-hour until "eight bells," or 8 o'clock, in the morning. Then it begins over again and strikes up to eight bells at 4 o'clock in the afternoon, and so on throughout the day.

This new pier clock is said to be only one of its kind in the United States. It has four glass dials in the tower, each six feet in diameter, and is illuminated automatically by electric light at night. Just behind the dials is a thousand-pound bronze bell, which was recently presented as a memorial to the sailors and soldiers who gave their lives in the great war "that freedom might live."

The clock is different from most of its kind, in that it has only one hammer as a striker, instead of two, while the works are so carefully constructed that automatic strikes not only control the length of the blow, but prevent them from going beyond the number required. The works are a marvel of construction.



These twin sisters were 80 years old when this photograph of them was taken at Bethel, Me. They were much alike, even to a fondness for white cats.

Here are the Johnson twins, shown in the other picture as children, as they reached the dignity of handsome young misses. At this age even their handwriting is alike. They are always together and are very fond of each other.



These two sisters are "fraternal twins," quite different from "identical twins." They have very opposite characteristics.

America. Briefly, the records of the Grosvenor brothers, admittedly identical twins, are sufficient to shatter any theory that identical twins are lacking in mental or physical vigor.

Professor C. H. Danforth, who examined much of the data received concerning the history and antecedents of twins, found ample evidence that the same resemblances and differences obtain with reference to mental traits as are found for characteristics that are generally thought of as more purely physical or physiological. Over and over the two twins of a pair enumerate virtually the same list of preferences and aversions. This was proved by the answers received to a questionnaire sent to twins wherever it was possible to reach them by mail.

One pair of twin girls heartily dislike mathematics while another pair

record it as their favorite study. One twin mentions that not only do she and her sister commonly dream about the same persons but they dream the same things about them. She states that this happens even when they are in different places.

Many twins state that their fondness for each other far exceeds their liking for other brothers and sisters. Both men and women twins write that they are always dissatisfied when separated from their co-twin. It is noticeable, Prof. Danforth says, that twins who express this sentiment are not only of the same sex, but otherwise similar.

On the other hand, it is quite possible, as Prof. Harris W. Wilder points out, that either fraternal twins or children of different births but with the same parents, may show many similar qualities.

POLISH PRINCESS ARRIVES IN AMERICA WITH HUSBAND

Great Pianist Paderewski May Play in Public Again if Health Recovers From Strain Caused by Strenuous Politics.

BY CONSTANCE DREXEL.

ONE of the latest arrivals in the diplomatic circles in Washington is Princess Casimir Lubomirska, wife of the new Polish nation's minister to the United States. There are four young children in the family.

Like all women of the Polish nobility, Princess Lubomirska (in Poland the final i of the husband's name is changed to an a for the women members of the family) is an accomplished linguist. She speaks English, French, German and Polish with equal fluency, also has a knowledge of Russian and Italian.

She is delighted with the opportunity of being in America, and hailed her husband's appointment to this country with great joy. During a talk with her, she told me that two of their estates in Galicia had been destroyed by the ravages of war during the Russian campaign.

Cracow Home Not Damaged.

"But our home in Cracow, where we lived most of the time," she said, "did not suffer, and we have even been able to bring over some of the precious things we had there."

Because of difficulties in transportation, it was impossible to bring over much furniture, but included in the boxes were some handsome pictures and old Flemish tapestries which will soon grace the new Polish legation.

Princess Lubomirska had to receive with the click of typewriters as an accompaniment to conversation. The offices of the legation are in the same house, and the officials and their secretaries are very busy with their affairs. The office of the minister is next to the drawing room, and the prince is sure to come in if the visitor happens to be an American who has visited Poland.

"My husband made a flying visit here 20 years ago," she said, "but I have never been here, though, of course, I have heard so much about America, especially from the Paderewskis, whom we have visited in their villa on the lake of Geneva."

to the ex-premier and how much he had been able to do for his country. She said that his retirement was by no means a downfall, but obligatory, because of his ill health, when strong fresh men were needed. Asked if the great pianist would ever play again, the princess replied that such a step was not too impossible.

"He will do anything to help his country," she said.

But the princess shies at the discussion of anything political. "Being a diplomat's wife I must not, and anyhow I don't know much about politics because I am so busy with my children, and, besides, my own tastes run to things social."

EDITOR MEETS NOVELIST

E. L. Godkin Tells of Taking Dinner With Henry James.

E. L. Godkin, the founder of the New York Nation, was one of the closest friends of the late Henry James, and he described him in one of his letters as "a delightful creature, too good for either England or America." Their acquaintance, it appears, began in the 60s, when the James family was living in Cambridge, Mass. The future novelist was then a youth of 19 or 20, just beginning to try his literary wings.

There could not be a more entertaining treat, Mr. Godkin recalled afterward, than a dinner at the James house when all the young people were at home. They were full of stories of the oddest kind, and discussed questions of morals or taste or literature with a vociferous vigor so great as sometimes to lead the young men to leave their seats and gesticulate on the floor.

Woolen Mills Enlarge.

SHERBROOKE, R. Q.—The Canadian Connecticut Cotton Mills company have let a contract for an addition to their plant and expect by the fall to be employing from 400 to 500 more men.