

Siamese Twins

Am I My Brother's Keeper?

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The most important part of this story comes at the very end.

There was a small town, snug in the Appalachian Blue Ridge Mountains of North Carolina, right against the Virginia border, in a county called Surry. There were only about 4,000 people in the county a century and a half ago.

The town had everything. It had its own railroad, its own produce exchange, its own granite quarry. It was independent. The people were self-reliant, frugal people. Into that little town came two people who were to change the atmosphere of that town and make it known, not just for Andy Griffith or Roger Hiatt or somebody else, but for the two famous people called the Siamese twins.

The medical background begins with a question of the incidence of multiple births in mankind. In the United States, there are about 11.5 multiple births per thousand, but conjoined twins (Siamese twins is the term given to conjoined twins after these two men were born) occur only one in 50,000 to 60,000 births as reported by Aird. It is the result of an incomplete separation of the two embryonic axes in one of them after the embryonic disc is formed. The types are labeled by whatever parts are stuck together. If the sternum is stuck together it is sternopagus, the head is craniopagus, the

thorax is thoracopagus; there is ishiopagus, pycopagus, xipho-ophalopagus, etc. If one fertilized ovum starts splitting and it splits beginning at the top of the head, it may result in incomplete separation or it may continue and split into identical twins. Double formation results in an incomplete division where conjoined twins have at least two heads and a set of legs and arms. Many of you will remember the Dionne identical quintuplets. How did five identical twins result from one ovum? The suggestion is that the original egg split twice, resulting in two identical eggs. One of these two split a second time, and then one of the resultant eggs split for the third time. Therefore, there were five identical girls. The two famous conjoined twins, Mary and Margaret Gibbs, toured the country a half century ago with their mother. Daisy and Violet Hilton, another famous pycopagus conjoined twins, also toured the country years ago. The famous pair of Jones twins were written up in *Good Housekeeping* last year and now live in Los Angeles. They are the only living adult Siamese twins, unseparated, that we know of in the world today.

How are conjoined twins suspected in a pregnant woman? One can suspicion them in a uterine diagnosis by physical examination, by x-ray, and in more recent years, by the use of ul-

trasound. The labor is often long and if a vaginal examination is performed, conjoined twins can be suspicioned. The amniotic fluid examination, including amniocentesis, and injection with contrast media, make the diagnosis easier today. The delivery is often difficult, and the neonatal period is rough. If surgical separation is attempted or anticipated, the preoperative evaluation is the most difficult part, and the special care needed in the hours and weeks following separation is most important.

In Constantinople in 945 A.D., the first successful surgical separation of conjoined twins was attempted. The occurrence of conjoined twins is international in race and its occurrence creates interest in all groups of people. Sadly, though, conjoined twins were often banished by royal or tribal chief edict. Although they thought it was a natural accident, that is, congenital and not hereditary, to some it represented an ill omen, and it was a bad sign to have one of these born in the country. Therefore, the conjoined twins would often be destroyed.

The actual Siamese twins, Chang and Eng Bunker, were born on May 11, 1811, in the city of Meklong near Bangkok, Siam, surrounded by the countries of Cambodia, Laos, and North Vietnam. Their father was Chinese, and their mother was part Chinese and part

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In 1835 they returned to Europe, England, Cuba, and Canada, and from 1836 to 1840 they traveled the United States from end to end. While they were in Philadelphia seeing physicians, Dr. James Calloway, a Wilkesboro, North Carolina, physician and a great hunter and fisherman in the mountains of North Carolina, said to them, "Why don't you men visit me sometime?" They said, "We'll do even better. We'll put on a show there." They signed up to put on a show in Wilkesboro, N.C., which is in Wilkes County.

At the Wilkesboro showing, a little brochure was passed out, as was done at most of their showings, and the brochure indicated that they were charging fifty cents for someone to see their act. This was expensive because you could probably get into a show in America in those days for a dime. They liked the area, the climate, the mountains, the hunting and fishing, and said to Dr. Calloway, "We are tired of this life. Why don't we settle down and be farmers?" So, they moved to Wilkesboro and became farmers and took out U.S. citizenship on October 1, 1839.

When they took out citizenship, they certified that they were born in the kingdom of Siam, declared allegiance to America and the United States, and declared themselves willing to defend its liberties and all that goes with it. Wilkes County was set in the foothills of the Appalachian Mountains and is about fifty miles from Mt. Airy and Surry County in the north where they spent most of their lives. When they settled in North Carolina, there were about a quarter of a million people there of whom 217,000 were farmers.

On one occasion the twins went to a wedding feast and met sisters Sally Ann and Adelaide Yates. The sisters' mother was 5'7" tall and 9' in circumference. The scales in those days could

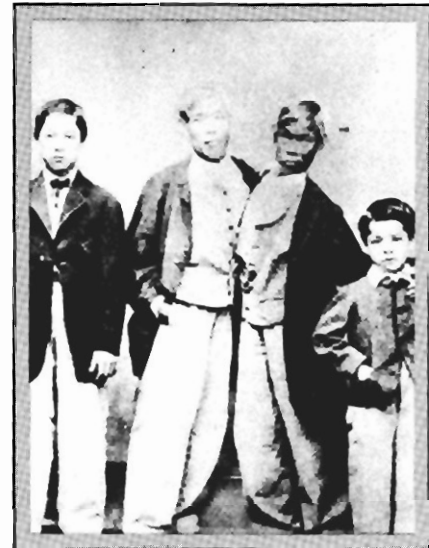
only weigh up to 500 pounds. All that is recorded is that she tilted the scales to one side, so she must have weighed more than 500 pounds. The twins gradually fell in love with these two sisters, not knowing at first of the love that existed in the other. Eng fell in love with Sally and Chang with Adelaide.

When the twins learned of the love each had for the sisters and decided they were going to get married, they went to Philadelphia to see a surgeon and checked into the Jefferson Medical College Hospital. They were prepped and draped for surgery when Adelaide and Sally showed up. They said to the boys: "We love you the way you are. It might kill one or both of you. Let's go back home." The surgery was cancelled. They went back home to the parents of the sisters and told them they wanted to get married. The parents said, "You can't. What will the neighbors say?" The four, on the other hand, said, "We are going to elope." To this, the parents said, "If you are going to elope, then we will give you the customary Christian wedding," which they did.

On April 15, 1843, the two couples were married. The next February Sally and Eng gave birth to a daughter, Katherine, and six days later Adelaide and Chang gave birth to a daughter, Josephine. They went on the same honeymoon and invented the first queen-sized bed!

They became tired of living in Wilkes County, and when they heard of a beautiful area fifty miles to the north in the county of Surry, known as "God's country," they bought a farm for \$3,750 on Stewart's Creek. In Surry County they became excellent farmers of renown.

A humorous event occurred when the two were building a barn of logs. They had a particular talent because they could put up logs along the corners at the same time since there were two of them. Chang was the more fiery of the two and apparently became irritated at Eng, who was on top of the building, and said to him, "I'm going to knock you off this building." Then he



Eng and Chang with their sons James and Albert at the start of a European tour.

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chuckled to himself, "What good would that do? I'd just fall off with you."

They constructed their house to fit their peculiar needs. The kitchen was not connected to the house so that in the event of fire it would not burn the entire house. They shared some interesting furniture within this house. For example, they owned a chair in which they both could sit at the same time.

As the families grew, they purchased a second house in Mt. Airy so that Mrs. Adelaide could take the children of the two families to be educated during the winter.

Before the Civil War, they had up to twenty-eight slaves. They also selected a family physician, Dr. Joe Hollingsworth, to take care of the families. Dr. Hollingsworth had a brother who was also a physician. The twins would frequently visit with Dr. Hollingsworth and ask him to separate them. Hollingsworth always refused.

After twelve years in retirement from exhibition, they decided to go for a six-week tour with their two oldest daughters. At a later time they went on a one-year tour in the United States with a son and a daughter. In 1857 they went to the West and South with another son and daughter for a six-month period.

By 1857 there began to be family discord among them. They went back to Dr. Hollingsworth again and said, "Cut us apart." He said to them, "You look happy the way you are. One or both of you may die. Why don't you do a better thing? Why don't you set up two separate households?"

They followed his suggestion. This was to have a profound effect on their descendants. Eng decided to stay where he was in the original house, and because it was not as valuable as the new home and property that Chang was to receive, Eng was given the slaves to make up the difference. This later affected the economic status of the two families.

The beautiful new home for Chang was built across Stewart's Creek, and it is still standing today. It is easy to understand why it is still standing when

one views the foundation and footings and observes that there are one-foot-square studs underneath the house. It was built with the help of slaves and is lived in today by descendants of the Chang family.

The twins supported the Southern cause during the Civil War. Their religion was affected by the multiple gods of Siam with which they had grown up, but they did adhere to the principles of Christian faith although they never joined a church. Their wives were active members of the Baptist faith.

In 1860 they went to California and the Northwest with two of their boys, being sponsored by Mr. Barnum of the Barnum and Bailey Circus. In 1865 they went on other exhibitions. During this time Chang had an infection in one ear which impaired his hearing for life. Eng, however, did not experience any ill effects from the infection.

In 1865 General Stoneman of the Union Army came through the county where they lived. He decided to hold a lottery draft and Eng's name was chosen. Chang said, "My name wasn't chosen, and I'm not going to go." Well, they didn't know how to settle this. All we know is that neither of them was forced to join the army.

Legally they could sign jointly or separately. One could sign for the two or the two could sign separately.

The twins also fought among themselves. Chang was apparently the one who instigated the ruckus most often. One time Chang had a customer who said something to him that he thought was insulting, and he slugged the patron. The police were called, and the twins were taken to jail. The judge said to them that Chang would have to serve in jail for two weeks. Eng said, "I didn't do anything, and I won't go." It would be interesting to see how the Supreme Court would rule on that one.

On another occasion, they boarded a train in Philadelphia. Again, Chang, being the most irritable one, decided to play a trick on the conductor. Eng gave the conductor his ticket and when the conductor asked Chang for his ticket he



Last known photograph of the twins.

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said, "I don't have one." The conductor told Chang he would have to get off the train. Eng said, "He can't, he's with me."

The twins slept at the same time; they awoke at the same time; they ate at the same time. They could even roll over in their sleep without awakening each other. They talked about the same things. In fact, it was difficult, if not impossible, to get them to engage in two separate conversations. This is what really made them one rather than two—the fact that they performed as one. Eng, apparently, was the best reader and was somewhat musically talented with the flute.

During their lifetime, Chang became increasingly addicted to alcohol and drank heavily, but Eng was apparently not affected. Chang had ten children and Eng had eleven children.

In February 1869 they went to England, and a Sir James Simpson examined them. In the *British Medical Journal* of February 13, 1869, he recorded some findings about his examination. He reported that the outer eye was better than the inner, and the heart and liver were in their correct positions. He also reported that the pulse and respiration were asynchronous. He transilluminated the band and recorded there were no pulsations in it. Dr. Simpson did a urinalysis and found the twins had different urine qualities. He gave potassium iodide to Eng, and it was present in his urine. But only a trace was in Chang's urine. Chang could reach down and touch his feet without Eng having to bend over. They didn't have a CAT scan in those days, but Dr. Simpson, a great physician who was knighted by the Queen of England, did all that one could and probably did the best physical examination we have recorded about the twins.

In the late 1860s the twins began their final grand tour in England with Katherine and Nannie, who happened to have tuberculosis. The war was now over and Eng had lost most of his money because he had to free his slaves. This had made him more impoverished than Chang, so Chang agreed to go to

England with him to make some money. They visited with Queen Victoria in England and the Czar in Russia. They also went to Italy, Spain, France, and Austria.

They wanted to see the best physician of their time while in Europe—Dr. Rudolph Virchow, the father of pathology. Dr. Virchow was forty-nine at the time, and he brought three other doctors with him to examine them. Vir-



The twins with family members.

chow's report states that the tube connecting the twins was three inches in diameter and five inches long. If it was struck in the middle, both felt it, but if struck on either side, only one felt it. If it was struck or tied, both became ill and dizzy. Dr. Virchow concluded that they could be separated but advised against it because they both seemed quite happy. He also noted that their livers might be shared and that their bodies functioned separately.

On the way back to the United States, about two days out to sea, Chang awoke one morning to find that he couldn't move his right arm and leg, the part nearest to his brother. For the rest of his life, Eng had to drag his brother with him and carry him.

The great lesson to be learned here is that sometimes we have to carry our brothers who have had strokes of a different kind, be it mental, spiritual, or otherwise, and help pull them or drag them for the rest of their lives.

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Chang began to drink more, and there was more ill will between the two. Financially, Chang had become worth three times as much as Eng.

The twins decided to make a compromise to live three days at one house, three days at the other, and on the seventh day they would rest.

In January 1874 Chang had pain in his chest with a cough, and had called Dr. William Hollingsworth to make a house call. The doctor diagnosed bronchitis and treated him with the best medicines of the day. With snow on the ground, they traveled three miles to Eng's house because they had spent the last three days at Chang's house. That night Chang complained of suffocating and difficulty in breathing and did not want to lie down. Eng said that he wanted to go to sleep and, apparently, they had an exchange of words but finally went to sleep. At 4:00 a.m. one of the little boys shook Eng and said that Uncle Chang was cold. He was dead. When Eng awoke he, too, was cold in his extremities and had nervous paroxysms. Within six hours, before the doctor arrived, he died. Think of what must have gone through his mind during those six hours. "My brother is dead, and I know what is probably going to happen to me. What do I do in these last hours?"

After the deaths, the family knew there would be entrepreneurs coming and trying to steal the bodies, so they decided to put the bodies in a cellar.

Dr. Hollingsworth was in Philadelphia visiting his friend, Dr. Pancoast, when he heard of the death of the twins. He knew how important it would be to the medical profession and society in general if a pathological report and autopsy could be obtained. He talked to Dr. Pancoast into taking the train down to Mt. Airy to perform an autopsy in the home. When Dr. Pancoast got into the house he said to the two wives, "I can't do an autopsy here. It's a bad house call. Why can't I take them back to Philadelphia if I will pay for the expense of doing so and do the autopsy at the Jefferson Medical College?" The wives consented.

Dr. Allen did the autopsy with Dr. Pancoast on February 10, 1874. They concluded they had a common liver but independent blood supply to each and pushed through openings of the peritoneum into the band, meeting in the midline. They concluded that the band contained skin and fascia. Two small peritoneal pouches were identified and vascular connections, with remnants of the hypogastric artery, were found. Their conclusion was that a peritoneal pouch and poor circulation would have been the main surgical problems. Also, they concluded that fear and shock were present. They further pointed out that Chang had a defective heart and probably died of a cerebral blood clot. It was also concluded that Eng had an extended bladder and possibly died of fright. There was little blood in Eng's veins and arteries; therefore, it might have been that he bled into Chang. They further concluded that Eng could have been saved had surgery been performed earlier.

The Adam Express Company had been contracted to move the bodies by railroad from Winston-Salem, North Carolina, to Philadelphia. The receipt was for one corpse, not two, and they charged \$31.11 for taking the two bodies to the medical college for autopsy. When the bodies were returned to Winston-Salem and Mt. Airy, they were kept in a cellar for a year and then transferred out in the front of Chang's house and buried. However, the tombstone that was placed over the grave contains only the name of Chang, not that of Eng. When Adelaide died in 1917, the two bodies were moved over to the Baptist cemetery, where they are now located. The twins had donated the land on which to build the church and cemetery.

Sally died in 1892 and was buried near Eng's house, where her body still lies today. There have been more than 1,000 descendants of these two men, none of whom were conjoined, but there have been two pairs of twins born to their descendants. The tombstone which marks the graves of the twins and Adelaide contains the name of Sally



Plaster cast made of the twins at Jefferson Medical College where the autopsy was performed on February 10, 1874.

Aren't we bound together because we share a common profession—medicine?

Ann, but she is still buried in front of the old house where she lived most of her life. In death, they were separated as wives, as they apparently were in life.

Now the most important part of this story.

The two answered forever the query, "Am I my brother's keeper?" They had no choice but to do the best they could to be their brother's keeper. They certainly reinforced the point that "no man is an island" and "no man lives alone." They brought to the forefront some real questions about our relationships that tie us together as a human family and to our God.

Aren't there a lot of bands and bonds that bind us together as children of God? Aren't we talking about our concern for our brothers and sisters wherever and in whatever land they live? Aren't we bound to friends with whom we share things? Isn't it sharing a common entity that makes us friends, and aren't we bound together because we share a common profession—medicine?

Some of the strongest bands or ties that we experience in this life are family ties. Don't we teach that families can be forever? On the other hand, how can our society and a nation like ours continue to survive when one third of the marriages cut that bond by divorce, when the most powerful bonds in human society are severed before maturing?

The most important bond we make in this life is the bond we form between us and our Maker. Isn't it stronger when we communicate with him by inspiration and communication by prayer in life, by knowing him and him knowing us? Don't we, as Christians, say that we share our lives with Christ and that we should take him and make him a part of our lives, walk with him and he with us? If so, let me ask you this question. If Christ were truly your Siamese twin, do you think you could ever take him to an X-rated movie? Would you be honest and true in your dealings? Would you be always helpful to other people? What would

your language be like? What would your attitude be toward your patients in reference to being honest and truthful?

The most crucial question is, What binds us to our God? And is that bond strong enough to endure death or does it have things making it defective such as existed in the lives of these two men and these two women? Things that separated them in life as they are now separated in death. 8



Tombstone at White Plains Baptist Cemetery marks the graves of Chang and his wife, Adelaide, and Eng. Eng's wife, Sally, was buried near their home in 1892.

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