

The Bridges of King's Hill

A violet autumnal evening had fallen over the city of Isfahan. Sofiya's house was in the northern outskirts, and her room was the northernmost, the casements flung open to let in the scented breeze from her garden. She snuggled deep under the thick quilt, with riotous summer flowers hand-embroidered by her mother, and looked at the far-off mountains, sprinkled with fresh snow.

"Daddy! Wouldn't it be lovely to live high up on the mountains?" she exclaimed. "In a city built on the highest peak?"

Naseeruddin wasn't so sure.

"It could get frightfully cold, darling," he said. "And think of sleet on all the steep streets! Everyone would be sliding and slipping, and poor Grandma would get hurt. Even a donkey cart would find it difficult coming up with the morning groceries."

Sofiya was still enthusiastic.

"But Daddy, it would all be so much fun! And I'm sure I could hold Grandma's arm when we went walking up and down the streets," she said. "Why don't people ever live on mountains?"

"But they do, my dear," said Naseeruddin reasonably. "There's Lhasa, that's the capital of Tibet, and there's Quito, that's the capital of Ecuador. But these cities are in high mountain valleys, sheltered by the mountains themselves. In the old days, kings built their palaces within forts on hills to protect them from raiders. In fact in those mountains you see to the north, but far, far to the east, near where they join the Hindu Kush, a king once built a new city, which everyone called the King's Hill. He got into lots of trouble till he was helped by a very poor man.

Sofiya was interested.

"Oh, do tell me about him," she said, settling back comfortably on her pillows.

"All right," said Naseeruddin, "I'll tell you a story my uncle the Mullah told me long ago, but you must go to sleep after the story."

Sofiya nodded, and turned to look at the mountains once again, now touched with russet and gold by the fading sun.

Long, long ago, in the year Minus 1234, which is very long ago, far to the east in Persia – started Naseeruddin in his best story-telling style – there lived a king called – well, we don't know his real name – but he built his capital on a hill, and it was called King's Hill. He wanted to protect himself from nomads and other raiders, especially the Bruzz, now don't ask me why they were called the Bruzz. Maybe because anyone who messed with them got bruised. That's

probably the right explanation, for the Head of the Bruzz was called The Bruiser! Anyway, maybe they later went on into Lebanon, and came to be known as the Druss! Such name changes happened all the time in olden times. The Hindus, for example, were people who lived along the Sindhu river, but the Greeks got their name wrong, and they are stuck with it now, poor fellows. Their Banjara tribes came into Persia along with Chengiz Khan's troops, and then followed them into Egypt. But years later when these nomads went to Roumania, they were called Gypsies, because everyone thought they really belonged to Egypt, and later when they lifted their tents and went to the broad pasture lands of Hungary, the Europeans called them Romany! So, you see, names change with the years, or they used to.

Anyway, the king wanted to make peace with the Bruzz, so he married the Bruzi princess, and called her 'His Woman,' – they were quite crude in those days, you know, in fact the French still do so – and the Bruzz not to be out-done called him 'Her Man!' So that's the only name we know him by – Herman – since an account of those days has been left to us by the Bruzi princess who was a lot cleverer than the king.

Now the king had his good points, though he couldn't read or write, for one thing, he danced beautifully. That's what really won over the Bruzi princess, if you want to know. He invented most of the dances we know, except the waltz, which was taught to him by his nurse, Matilda. His favourite dance, though, was the Salsa. You thought it was invented by Cubans, didn't you? Well, you are wrong, as is everybody else, it was taken to Cuba by descendents of the people of King's Hill. It was first danced by Herman of the Salsa, as he came to be known later, up and down the land.

Herman of the Salsa had many knights in his entourage, in fact, more than many kings of his day. But they all had duties to perform – guarding the city from raiding Bruzz, or supervising harvesting, or even just chivvying the peasants so that they wouldn't doze off under the balmy summer sun. While Herman was glad his knights were doing their duty, he got impatient when it came to dancing time, and there were very few around when a good tune was struck up. So he invented a special Two-Tone Bell, which all could hear, even if they were at the edges of his kingdom. The best dancing knights were to hurry back to the palace for a dance when the Two-Tone Bell was struck under pain of royal displeasure. When these Two-Tone Knights – for that's how the ordinary people came to call them – came hurrying onto the dance floor, the king was very pleased, and would salsa away the night with his queen.

The Two-Tone Knights, though, began to grumble. Not that they did not like to dance. They liked nothing better, that is, besides chivvying peasants or killing the Bruzz. But getting into the palace was a big problem. The king like a prudent ruler had chosen a hilly island in a river for his capital, so that the river formed a natural protective moat all round it. His people also liked the idea very much for the river was full of eels, which they could fish straight from their living room windows. But once the city was built, they started calling the eel river 'The Pretzel,' don't ask me why, for there are no pretzels in Persia, people are just strange. The king had a wooden drawbridge thrown over the river which could be pulled back quickly if there was an attack. But the knights found this single bridge a nuisance. They had to splash through the river wherever they were coming from, and go all the way round to find it. The people also

didn't like all these Two-Tone Knights clogging up the traffic as they thundered over the simple wooden bridge, especially on market days, but they were more polite about their grievance.

"All right, we will have another bridge on the other side," said the king, who was all accommodation.

"But what about us, who are on the far northern marches," argued some knights.

"And yes, what about us in the southern pastures?" asked others.

"All right," said the king, "we will have bridges all round, to the east, to the west, to the north and even to the south."

So that was settled, and four bridges were built. But the new bridges didn't make everyone happy. The butchers were the first to complain.

"Galloping knights throw a dirty big mask of dust all over the meat," they said, "and it was no use the king's chef yelling at us, he should speak to the knights first."

The greengrocers said, "Yes, we can wash all the vegetables after all the knights have ridden off, true, but it all takes time, and a down-turn in the economy doesn't help the city, or anyone else, Your Honour."

Only the blacksmiths were happy with their bridge, for hard-riding knights meant custom, so they welcomed them, dust or no dust.

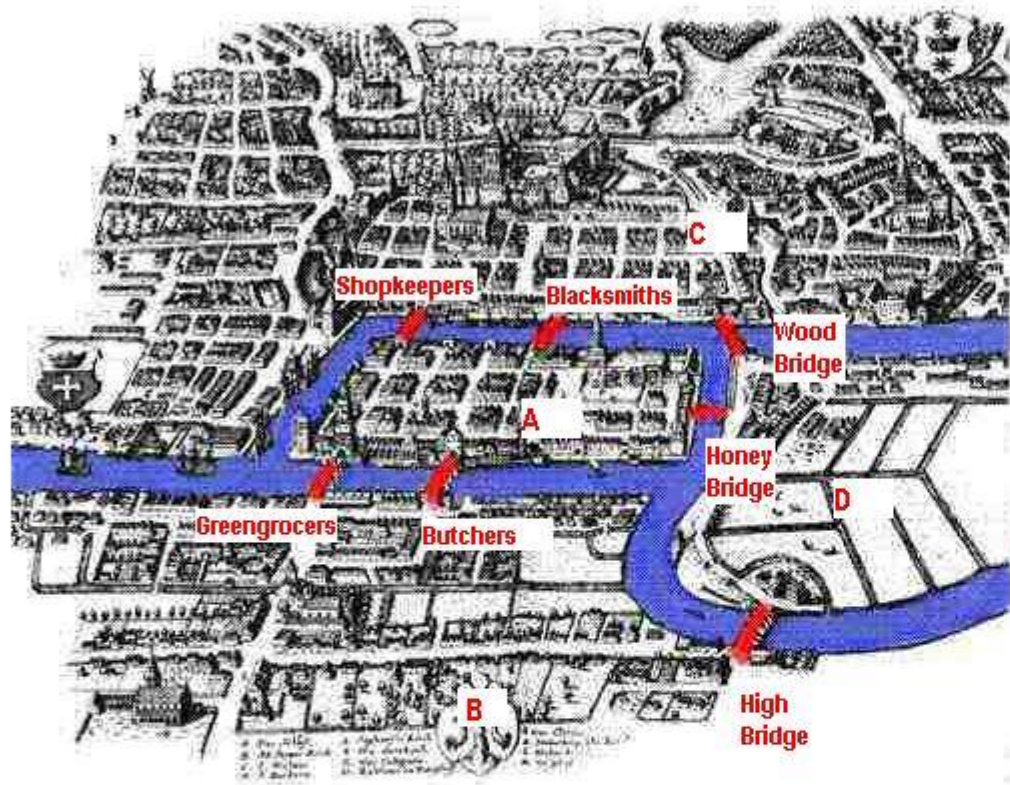
So, the king, who was really a good chap, built a new broad bridge with big state-supported markets on either side, which pleased all the shop-keepers, and a new high bridge that no-one but the knights would want to use, and finally to please His Woman, that is the queen, a nice little bridge leading to the flowered gardens from which bee-keepers brought her everyday a fresh jar of honey. She had a sweet tooth, besides having a sweet smile and a sweet nature. Every year in spring, she would grant a chest full of gold to anyone who brought her the sweetest honey for tea, and for that year that honey would be known as The Grantchester Honey for Tea, believe you me.

Sofiya interrupted: "Did you say there were seven bridges in all, Daddy?"

"Yes, there were seven in all," said Naseeruddin.

"I am getting muddled," persisted Sofiya. "Can you show me a map where they were in the town?"

Naseeruddin smiled. "As it so happens, Great Uncle the Maulana, did leave me a map. Look! Here it is!" And he showed Sofiya this map.



Sofiya smiled when she saw the map. "I understand now everything clearly," she said, "do go on, Daddy."

Everyone was very, very happy with these seven bridges of King's Hill, continued Naseeruddin, except poor old Leo the Oiler. You see, being on a hill, the city got quite cold most nights, and everyone, especially the king and his knights in their draughty dancing halls, needed heating oil for their furnaces. Persia has always been rich in oil, so that's why all these bandits from olden days have raided the country under one pretext or another. But old Leo the Oiler didn't have to worry about that, his job was to supply oil to King's Hill, and he took his donkey and oil-cart laden with oil jars everyday into the city through one bridge or the other, he had a day-pass for every one of them. Once he entered through one bridge, let's say the Shopkeepers Bridge, the guards who had strict instructions would tear off his bridge-pass and tell him to use another bridge on his way out. They were all highly trained, and kept a keen eye out for anyone who did not have a pass. Even in those days, as I said, there were all these foreign terrorists who tried to steal the country's oil.

Leo the Oiler didn't like the steep streets of the city, built as it was on a hill. His donkey liked them even less. The least tiring way to supply oil to houses in different parts of the city, and even to various wings of the king's sprawling palace, was to go in and out of the bridges, off-load his jars and be back home before nightfall. But every time he went through a bridge, his day-pass got torn off and when he had finished his last delivery he found himself back in the middle of town without any bridge-pass left to get him home. You can imagine poor Leo's state of mind. Several nights he spent at a friend's home or at a lodging. The next day he would be late with the heating oil, and get roundly scolded. The Superintendent of the Bridge Guards called him a stupid old Oiler, and said surely he could manage his routes better and find his way home at night.

One night, the lodging-house keeper advised him to consult the Great Philosopher, who everyone knew, knew all the answers.

"How do I find the Great Philosopher?" asked poor old Leo the Oiler.

"Well that's easy," said the lodging-house keeper. "Stand in the main square at 7.43 sharp in the morning and you will meet him taking his constitutional. Can set your watch, God bless him!"

Leo was in the main square by 7.15 in the morning, he was that anxious to get the Great Philosopher's advice. It was a sharp cold morning, and he had to jump up and down and stamp his feet to keep warm and blow on his fingers, but as the lodging-house keeper had said, the Great Philosopher entered the square from the palace end at 7.43 sharp. He wore a long velvet coat that sparkled with stars and crescents, and on his head was a high black fur cap. He waved his arms and talked to himself in deep tones, no doubt about very weighty matters.

“Excuse me, Sir...I mean, Oh, Great Philosopher,” stammered poor old Leo the Oiler, I don’t mean to disturb your Highness, no Sir, but... but... could you show me the way to cross the seven bridges just once every day, and still get home?”

The Great Philosopher looked all round at hearing his voice, and then at last spotted Leo the Oiler standing right in front of his nose.

“What did you say?” asked the Great Philosopher irritably. “Speak clearly, man, don’t mumble!”

Leo the Oiler stammered out his humble request once again.

“Ah, Ha!” cried the Great Philosopher, mightily pleased. “I see you are not yet Enlightened! You must emerge from your own self-imposed immaturity!” Actually, he said ‘unmündigkeit’ for that’s the way philosophers speak, but we shouldn’t for we are ordinary folk.

“What you need to do my dear oily friend,” said the Great Philosopher animatedly, poking Leo in the chest with a long fore-finger, “what you need to do is use your own intellect without the direction of another. Do you understand? You are responsible for this immaturity” – he once again said unmündigkeit – “and, and dependence! Its cause, permit me to inform you, is not a lack of intelligence, but a lack of determination and courage! Sapere aude! Dare to know!”

With that the Great Philosopher turned and started to walk away, but Leo was quite determined to get advice, if there was advice to be got. He ran after him and grabbed his long flowing velvet coat.

“Please, Sir, please tell me how to cross the seven bridges,” he pleaded.

“Shan’t! Won’t! Can’t! Can’t! Can’t!” yelled the Great Philosopher, stamping his foot like a child.

“Why do you keep shouting Can’t! Can’t! Can’t?” asked Leo in confusion.

“What else can I say?” asked the Great Philosopher, puzzled.

“Jesus!” exclaimed Leo in anguish.

“Yes, you spoke to me?” asked the Great Philosopher calmly this time.

Leo shook his head. “I just said Jesus,” he said weakly.

“I thought so,” said the Great Philosopher thoughtfully. “The name we commonly use to call on the Messiah. In ancient Aramaic we use another name for God with us... Anyway, what did you want?”

Leo looked at him helplessly.

“Yes, I recollect now,” said the Great Philosopher smiling brightly. “You, by the looks of you, should be an oiler. Right? You, in other words, belong to the category of servants known as oilers. And it is imperative you do your duty as an oiler, or we will all freeze to death of cold. There! I have solved your problem!”

The Great Philosopher once again turned to go. Leo clung to him like a drowning man.

“Sir! Sir! Do...do tell me... how I am to cross the seven bridges just once every day!” he stammered out weakly.

“So! That’s your problem! Why didn’t you say so at the start. My dear Oiler, act only according to that maxim whereby you can – at the same time – will that it should become a universal law! That’s all you need to know.” And with another muttered unmündigkeit the Great Philosopher was gone.

“Never mind him,” said John the herder, who had been standing by listening to all this, along with his interested swine. “He isn’t all that great a philosopher, as they make him out to be.”

Leo went back home very dejected. But he was a game old oiler. He tried every possible route he could think off, but every time he found himself locked into the city without any way home open till next morning brought him a new set of day-passes. Everyone laughed at his stupidity. Funny stories about Leo the Oiler circulated well beyond even the boundaries of that small kingdom. He didn’t mind if people laughed at him and his stupidity. He was a good-natured chap. But he did mind spending the night in a lodging in town. So, when he really could not find a way to cross every bridge on his route without getting caught inside for the night, he carefully put away one last bridge-pass into a deep inside pocket, and finished his deliveries walking up and down the steep streets. This made him very tired, and once or twice in a day his donkey would just sit down and refuse to move. Consequently, he got home very late, tired, ill, and irritable.

He smiled less and less at the jokes made up about him. Once or twice when he really got fed up at all the cracks about his slow wits, he would even mutter something back about people who thought they were very clever but would find out who was really dumber one day, if there was a God. It all came to a head when the king decided to celebrate a Day of Mirth, and called it Leo the Oiler’s Day. All the streets were festooned with buntings. The pubs were opened up as Free Houses for Leo the Oiler’s Day, and free beer was poured into anyone who could still stand on his feet. There was a lot of laughter and dancing the salsa on the streets.

The king took the lead in the dancing and meeting Leo the Oiler sitting morosely by a fountain in a cobbled courtyard asked him all in good humour how he and his donkey got so muddled everyday on their rounds.

Leo had had enough.

“If you are so clever, Your Majesty,” he said, at the top of his voice, “please show me yourself how the seven bridges are to be crossed, one and only one at a time!”

Everyone, as you can expect, was quite shocked at his disrespect to the king, and they all fell silent. But the king was in high humour, having himself visited several Free Houses that day, much to the gratification of the pub-owners, and he said laughingly, why, he would salsa his way through every bridge. And he danced down the greengrocers bridge, followed by his knights, and tradesmen, and great ladies, and parlour-maids, and old soldiers, and bank clerks, and governesses, and, and, well everyone else in town who could dance. They danced down a bridge and danced up another, till they had danced through all the bridges. Then laughing, and tired, they all sat down by the fountain in the main square while boys brought out great pints of beer for everyone. The king patted Leo on the back and called him ‘A Good Fellow,’ great ladies smiled at him, and the pub-owner ordered that three pints of beer should be set up in front of him.

“But Your Majesty,” said Leo stubbornly, when there was a little quiet, “you crossed the Honey Bridge twice – I counted – so you still haven’t done what you said you would do!”

Everyone was quite shocked at his temerity. I mean it was the Day of Mirth, all right, but he was just a lowly oilier and was taking his license far too far. But the king prided himself on being a just man. Having downed some excellent draught beer he felt fresh again, and challenged everyone to join him in another ‘round bridge dance.’ No one dared to call it a day, so off they went again, this time keeping careful count of the bridges they crossed. As Leo could have told them, whichever route they took, they ended up on the wrong side. Even the king was getting tired, and a thoughtful frown sat on his royal brow. Several knights were openly cursing that meddling oilier and his cursed oil. The ladies had given up long before the shades of evening began grew over the main square.

The king sat in the centre of a silent crowd, immersed in thought, gulping his beer with great gasps.

“You are very right, Leo,” he said at long last, “There is no way the seven bridges can be crossed just once every day without getting to be on the wrong side. You have shown Us how thoughtless We have been. From this day on you shall live in a special wing of the palace. Tell you what! We will make it into an inn. We shall name it Leo’s Inn! What’s your middle name, Leo?”

“Kalin,” said the Oiler, shyly.

“Right! We will call it Leo Kalin’s Inn!” said the king. “And We shall come there everyday to have a drink with you!”

Everyone cheered of course, partly in relief that they were done with dancing for the day. But they also liked their king and his easy ways, and they liked Leo the Oiler as well, and met up for a drink and a dance at Leo Kalin’s Inn, whenever they could get away from work, which was quite often in those days. Well, that was a long, long time ago, but the fame of Leo Kalin’s Inn

and the great people who gathered there came down through the ages, till these days most people just know the place as Kalin Inn town.

Sofiya laughed sleepily into her pillow.

“Oh, Daddy! You have got everything so muddled up, it’s funny!” she said.

Naseeruddin was puzzled. “Got it all muddled up?” he asked with concern. “What have I got muddled up?” But Sofiya was already fast asleep.

Naseeruddin gently shut the window. It was quite dark outside. He then kissed his daughter softly on the brow, and tiptoed out. Whatever did Sofiya mean? He shook his head mystified, and wondered if anyone could help him straighten out the story. Later, he asked around but no one could.

Postscript:

Every good story should have a postscript, so we know what happened later, don’t you agree? When Sofiya went back to school, she left a little note for her father. This is what it said:

Dearest Daddy,

Great Uncle the Maulana was pulling your leg, Daddy, when he told you the story. It’s really about the Seven Bridges of Königsberg, in East Prussia, which were figured in a theorem in topology by the great 18th century mathematician, Leonhard Euler. Königsberg was the capital of the Teutonic Knights of old, and defended against the Slav tribes of the Bruzi by Hermann von Salza. The river that flows through Königsberg, circling the island of Kniephof, is the Pregel, into which flows the Angrapa, meaning eels in Old Prussian. Only the bridges in the story are given their right names; all the other names are close to the real ones and meant only to tease you to discover them. Oh, I think he threw in that reference to Rupert Brooke’s Great War poem on Grantchester, because it is across the river Cam from Cam-bridge, do you see? While there is no record that Euler sought the advice of the great philosopher Immanuel Kant of Königsberg, it is just possible. Incidentally, Johann Herder was the only notable philosopher of those times who did not praise Kant, whose Christian name is derived from the Aramaic name for the Messiah, or ‘God with us.’ Königsberg was renamed Kaliningrad by the Russians, and is now part of Russia.

I knew all this soon after you started telling the story, Daddy, but kept wondering why Great Uncle the Maulana had presented you an important mathematical puzzle of its time as a fable. I have now figured out why. You have always been scared of mathematics and grumbled that it is dry, and useful only for counting money. Mathematical discoveries are just as enchanting as any fable, Daddy, as full of lore as any epic, and on the way lead you to make amazing discoveries about life and people. The Maulana has shown you that the civic centre of this mathematical puzzle was also the home of the greatest moral philosopher of the Enlightenment, and that it had also been the city of the medieval Teutonic Knights! Euler set out

to solve a popular puzzle, but on the way he wrote the first paper in topology! Anybody can understand it, Daddy, even you, so I am attaching it as an appendix.

Much love to my silly old Daddy,
Sofiya

Naseeruddin turned to the appendix and for his daughter's sake studied it for all of ten minutes. Then, when he was about to see that he could understand what it was all about, he put it aside with a yawn. How wise his daughter was, thought Naseeruddin, and congratulated himself on giving her a name worthy of her.

THE END