

## THE FIRST INDIAN AERONAUT

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Ramchunder Chatterjee, the first Indian Aeronaut, made his maiden solo balloon flight on 4 May 1889. He was also the first Indian to make a parachute descent. Ballooning as introduced in India by the visiting showmen from Europe had little to do with scientific pursuits. The life and activities of Chatterjee, however, reveal that despite this peculiar mode of introduction of a new technology, positive Indian response in the field did have socio-psychological significance. The study also outlines how the colonial policy leading to reluctance on the part of the government in setting up sulphuric acid manufactory in India, among other things, also had detrimental effects on ballooning in India.

A little over a hundred years ago, Ramchunder Chatterjee made his maiden solo ascent in a balloon from Calcutta. The ambitions and aspirations of the first Indian aeronaut are worth recording on more than one count over and above curiosity. Borne aloft by a balloon man conquered air in 1783. The sense of excitement caused by the success of the early aeronauts, as balloonists were called, was perhaps in no way inferior to what took place when the astronauts conquered space. L.T.C. Rolt, a chronicler of engineering and technology, has written, "No other invention has ever excited so much popular wonderment, nor were any other pioneers so extravagantly acclaimed as the first aeronauts"<sup>1</sup>.

It would, however, be wrong to assume that balloon flights served no purpose other than exciting entertainment, promoting bravura and folly in equal measures. Starting from 1784, numerous balloon ascents have been made for scientific observations about atmospheric conditions and the effect of altitude on man. It has also been used extensively, before powered flights took over the charge, in military operations. A study of the development of ballooning also reveals how scientific research and technical advancements took divergent paths in France and Britain in the 18th century, though both of them at the time were the leading scientific nations. This last aspect is worth paying a little more attention, as it would help us make a proper appreciation of the pursuits of Ramchunder and their significance.

### BALLOONING: SCIENTIFIC ENDEAVOUR VERSUS ADVENTURISM

Entienne and Joseph Montgolfier, wealthy paper manufacturers of the town of Annonay in southern France, first let loose a balloon, a large linen bag filled with hot air on 4 June 1783. By the end of the year, two manned flights had taken place from Paris. The Academie Royal des Sciences in Paris within a few weeks of the Annonay flight appointed a committee consisting of eminent scientists, including Antoine Lavoisier, to consider whether the new invention was worth granting financial support for

promotion. The committee entrusted the construction of a new balloon to Etienne Montgolfier and met the expenses of construction and of a series of tests. Scientists outside the Academy also raised funds and entrusted brothers Charles and Robert the task of conducting further experiments. This saw the first flight of a balloon filled with hydrogen on 27 August 1783. The first manned flight in a hot air balloon of Montgolfier on 21 November of the same year was followed within days, on 1 December, by a hydrogen balloon of Charles and Robert brothers. The Academy of Sciences supervised Montgolfier's experiments under direct control, but Charles and Robert also sought the Academy's approval. It is also to be noted that French Government considered ballooning as a subject of interest only to scientists and tried to dissuade the fun-loving public from attending the trials<sup>2</sup>. Scientific study of ballooning was encouraged in France primarily on two counts. First, it was a matter of national pride, as the French had outdone England in taking the first steps in conquering air. Second, the scientists were convinced of the research value of balloons in many scientific disciplines like meteorological, astronomical and topographical observations, determination of the limits of respirability, speed of sound and the velocity of falling bodies in the rarefied atmosphere. Lavoisier outlined the role of a Commission appointed by the Academy to coordinate the branches of science related to ballooning and this was ultimately responsible for solving, though in many cases imperfectly, the methods of constructing the envelope of the balloon, of manufacturing hydrogen and keeping it dry, the techniques of ascending or descending and the horizontal manoeuvrability possible with hot air and hydrogen balloons<sup>3</sup>.

As we turn to England, a completely different situation presents itself. Joseph Bank, President of the Royal Society of London and the so-called 'titular' head of 'British Science', though fully aware of the developments in France, was absolutely reluctant to embark upon any kind of ballooning experiments, because, he argued, all the properties by which a balloon acts are as well known as 20 experiments were made<sup>4</sup>.

Perhaps the Royal Society tried to minimize the importance of the invention by not taking up the French gauntlet. The inaction on the part of the scientific community was seized upon by adventurers and ever since the first manned balloon flight in London (September 1784), ballooning came to be associated with crowds thirsty for fun and frolic. It also saw the emergence of quack balloonists with tall and absurd claims to secure subscriptions and gate-money. The differences in the social organisation of science in France and England were responsible for different routes being charted for the development of ballooning<sup>5</sup>. In the context of the above, India as a British colony, as is to be expected, owed introduction of ballooning to the seekers of fortune, the adventurers.

#### SULPHURIC ACID: THE KEY AGENT OF DELAY

The time lag between the first manned ascent and the Indian aeronaut's maiden venture is about 106 years. On a practical plane, the lag, however, is not that formidable. The first manned flight in India was undertaken by D. Robertson, an itinerant balloonist, on 16 March 1836. There are accounts galore in the contemporary

newspapers about the excitement, if not furore, created by Robertson, when he took off from Muchikhola, a suburb of Calcutta. Robertson's balloon contained 9600 cubic feet of hydrogen for the preparation of which he had to carry overseas the necessary chemical apparatus, including 24 casks of sulphuric acid<sup>6</sup>.

It has already been noted that both hot air and hydrogen have been tried from the early days of ballooning. Hydrogen, being lighter of the two, offered greater lifting power, though the risk of violent explosion could never be ruled out. Hot air balloons had a marginal advantage as regards vertical manoeuvrability, which could be regulated to some extent by controlling the flame of the burner. But, in general, balloonists preferred hydrogen. Fitzherbert Kight, the next successful balloonist to visit India, also used hydrogen. His first ascent took place from Calcutta on 6 November 1850<sup>7</sup>. He faced great difficulty in procuring sulphuric acid locally for his third ascent in Calcutta. Kight claimed to have spent about Rs 500 for each filling of his balloon<sup>8</sup>. Unfortunately, the capacity of Kight's balloon had never been mentioned in the contemporary newspaper reports. However, a simple calculation based on the tiny 9600 cu ft balloon used by Robertson reveals that Kight did not exaggerate the sum to a large extent (9600 cu ft of hydrogen at 30°C can be generated by the action of 1182 lb of sulphuric acid on zinc. Priced at 3 annas/lb as it was then sold at Calcutta from the sole importer, Bathgate and Co. in 1841<sup>9</sup>, the cost of the acid alone works out to about Rs 225).

Scarcity of sulphuric acid, cost apart, was the most inhibiting factor for experimenting with balloon in India. A few words about the manufacture of sulphuric acid in 19th century India are necessary, because this in itself constitutes one of the arguments why the virtual time lag of the Indian enterprise in ballooning should be calculated from a later datum. The members of the Medical Board in their appeal to the Governor General of India on 2 December 1841 urged the government to grant pecuniary assistance to A. Robertson, a man with necessary experience, for establishment of a sulphuric acid manufactory in Calcutta. J.W. McClelland, the Government Apothecary, pointed out, "Sulphuric acid is the basis of almost every chemical operations"<sup>10</sup>, in much the same way as P.C Ray, the great Indian chemist, did almost 90 years later. Ray had written that sulphuric acid is the mother of all other industries<sup>11</sup>. Around 1932, Ray also observed that D. Waldie & Co. was the only chemical works in Bengal which manufactured sulphuric acid. Actually it was in 1853 that David Waldie, an eminent chemist, set up the first modern sulphuric acid manufactory in Bengal, if not in India<sup>12</sup>. The 1841 proposal by the Medical Board was flatly turned down by the Governor General, because it did not appear to "His Lordship... that the government can expediently engage in any speculations of the nature referred to, such scheme are best left to individual enterprise and the government must look to the effects of private competition for the reduction of the market price of the articles required"<sup>13</sup>. We must also add that A. Robertson was ready to supply sulphuric acid at one anna per pound against 3 annas/lb, the prevalent market rate at Calcutta.

## THE BENGALÉE.

## Advertisements.

ANNOUNCEMENT EXTRAORDINARY!

**GRAND BALLOON ASCENT!**

THE FIRST NATIVE ATTEMPT

IN

INDIA!

BABU RAM CHANDRA CHATTERJIE

The First Indian Aeronaut

in his own Balloon

"THE CITY OF CALCUTTA"

WILL ASCEND

FROM THE GAS WORKS GROUNDS

on Saturday April 27, 1889.

GATES OPEN AT 2 P. M.

Balloon Ascends at 4-30 p. m.

ASSISTED BY

THE BEADON SQUARE AMATEUR  
QUADRILED BAND.

## Prices of Admission.

Reserved Seats (under shades)... Rs. 3-0-0  
 Chairs... .. " 1-0-0  
 Special cheap enclosures for the  
 million (up to 4 o'clock) ... .. " 0-4-0

*First class accommodation for Native Ladies.*

By desire of several gentlemen special comfortable arrangements have been made for Native Ladies. Zenana seats Rs. 2 each.

We request the nobility and gentry of Calcutta to secure the Zenana Seats as early as possible as only a limited number could be spared now.

The arranged grounds of the Gas Works will be open to public inspection from Friday the 26th instant.

Tickets can be obtained and plan of the grounds seen at the following addresses and at the gate on the day of the performance:—

66, Pathuriaghatta Street, Friend & Co.'s  
 61, Bentinck Street, Allan & Co.'s, 85,  
 Durrantollah Street.

Fig. 1. Advertisement in *The Bengalee* (27 April 1889): The first announcement of Ramchunder Chatterjee's balloon ascent

## IN THE ERA OF COAL GAS

It was a matter of simple coincidence that the Oriental Gas Company was established at Calcutta in 1854, only a year after D. Waldie's chemical works. The regular town gas supply, meaning coal gas (carburetted hydrogen generated from coal), was commenced in Calcutta from July 1857<sup>14</sup>. Calcutta as such lagged behind London by over 40 years, because by 1816, 26 miles of gas mains had been laid in the capital of the Empire. Not only did the availability of coal gas for commercial and domestic purposes in London and adjoining suburbs spread rapidly, Charles Green, one of the most skilled balloon-pilots of the world, made the first ever ascent using coal gas on 19 July 1821<sup>15</sup>. Within a decade, coal gas virtually replaced hydrogen in ballooning. It is true that the specific weight of coal gas being greater than that of hydrogen, in order to lift a given weight, a balloon intended to be filled with coal gas would need to be of greater capacity. But this was more than compensated by the fact that a six times more voluminous balloon could be filled at the same cost as compared with hydrogen, not to mention the ease of filling. The balloon could now be inflated simply by connecting it to a gas main. The advantages of coal gas which outweighed the loss of lifting power were ease, speed of inflation, cheapness and the higher specific heat (more than that of air). The last aspect, higher specific heat, can be physically interpreted as coal gas is less susceptible to changes of temperature. For the balloonists, this was a blessing, because it meant that if two balloons of equal lifting power, one filled with hydrogen and the other with coal gas, are sent off together, the latter would fly further. In short, coal gas became dearer to the balloonists.

The only problem which plagued the coal gas balloonists was the unpredictable and widely variable quality of the town gas produced commercially. The specific gravity varied widely and balloons filled at the works of a gas company could expect a much greater lift than if they were tapped from a main of the same supply. In fact, this was the greatest hurdle faced by Percival Spencer, the most successful of the balloonists who visited India. Not only did he belong to the era of coal gas, he was a grandson of Edward Spencer, a balloonist friend of Charles Green. Edward named his son Charles Green and Charles Green Spencer was the founder of a famous firm of balloon-making in London, of which Percival later became a partner<sup>16</sup>.

After a successful balloon ascent and a parachute jump in Bombay, Percival arrived in Calcutta. Spencer's coal gas balloon, 'The Empress of India' was scheduled to take off from Tivoli Gardens on 2 March 1889<sup>17</sup>. But the gas pressure in the mains was not sufficient to fill the balloon. The gas works of Calcutta, situated at Narkeldanga, was rather far off. Spencer reverted to the old faithful hydrogen and successfully took off from Calcutta Race Course on 19 March 1889. It was a sensational flight and Spencer disappeared with his balloon and it was not before 21st evening that Calcutta was relieved to know that Spencer was stranded in Sunderbans (mangrove forest on the coast of Bay of Bengal), but was safe<sup>18</sup>.

To cut down the cost of filling, Spencer for his next flight again reverted to coal gas. Experience had already taught him and perhaps D. Coats Niven, the Manager of

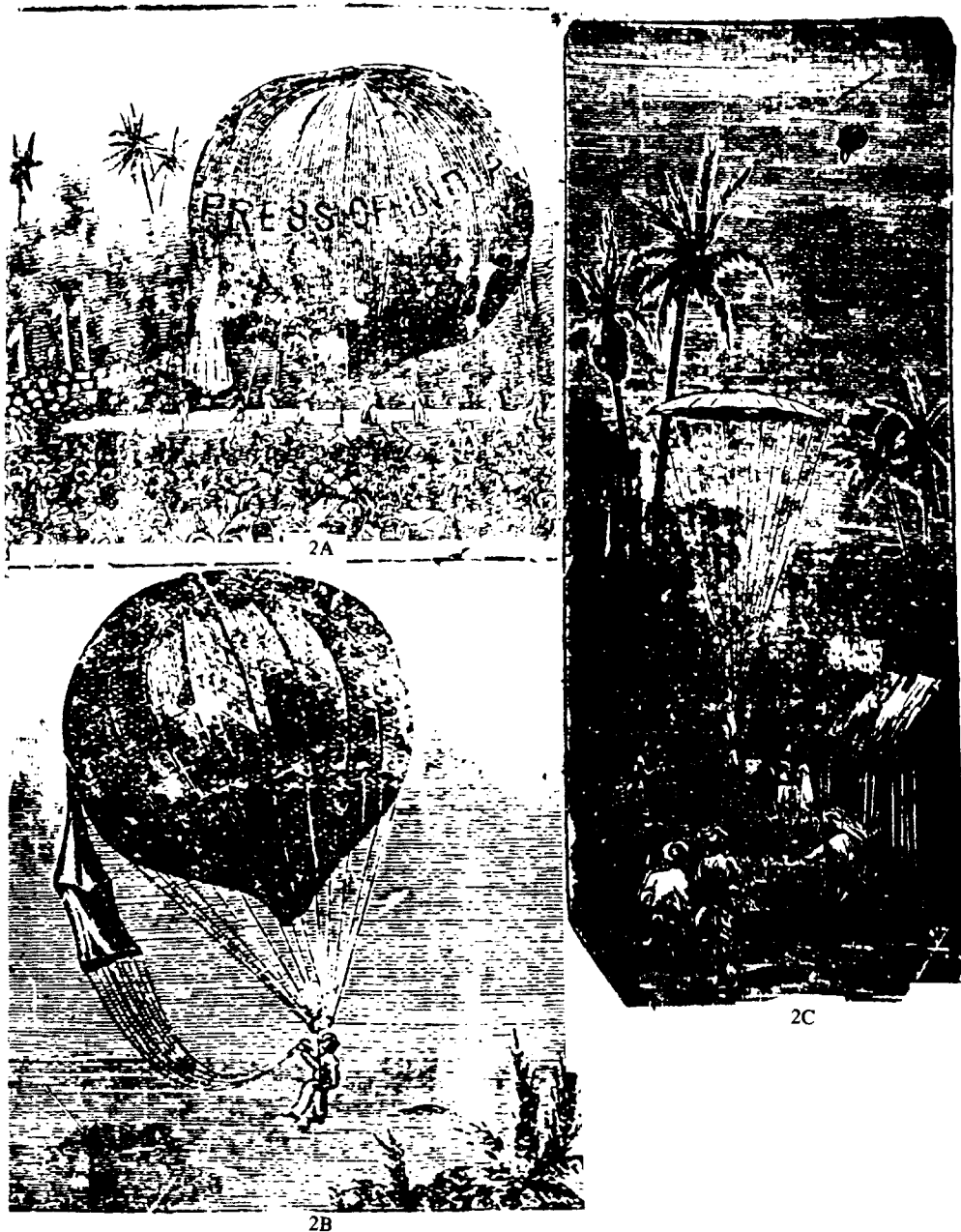


Fig. 2. Contemporary wood-cut

(a) 'Empress of India' is being filled prior to Chatterji's first maiden parachute descent

(b) Ramchunder flying in the balloon to which the parachute is attached

(c) Chatterjee making his first parachute descent

Source: Jogindranath Sarkar, *Chobi O Galpa*, 17 ed., 1946, pp. 81-82

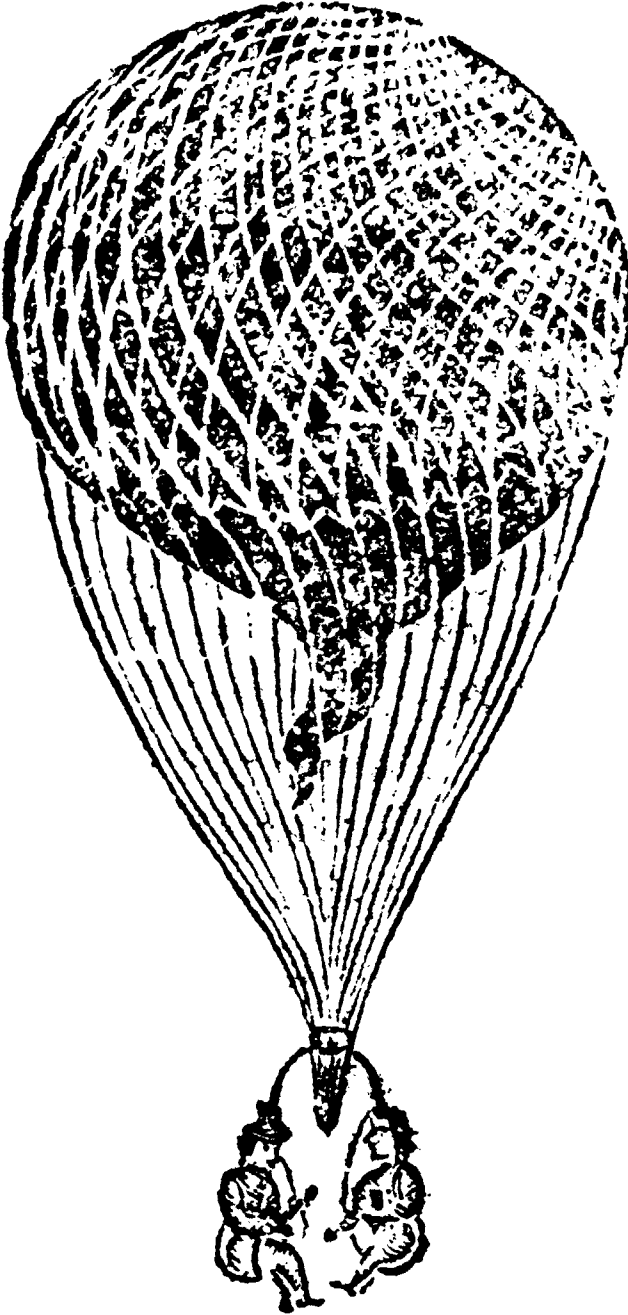
the gas company of Calcutta, also advised him to stay close to the gas works. The spacious yards of the gas works at Narkeldanga really turned into a balloon field of Calcutta subsequent to Spencer's ascent on 10 April 1889. During this second flight on 10 April 1889, Spencer was accompanied by Ramchunder Chatterjee. Spencer had acceded to Chatterjee's request to teach him the art of ballooning, for which Chatterjee paid a sum of Rs five hundred<sup>19</sup>. Ballooning is a dangerous sport. Free travel by balloon is hazardous, in particular the landing part of it. Letting off correct amount of gas by a pull of the whip chord and then throwing out ballast for gaining lift — the hunt for a better spot — often prompts the balloonist to take recourse to these two operations in succession for quite a number of times. And in case the wind picked up a little speed at the time of landing — that was the cause of many a tragic ending.

#### RAMCHUNDER CHATTERJEE AND 'THE CITY OF CALCUTTA'

Ramchunder, a resident of Kansaripara (Simla) of Calcutta, started his career as an acrobat (flying trapeze player) in the National Circus Company founded by Nabagopal Mitra<sup>20</sup>. Mitra was renowned for his patriotism and was instrumental in organizing 'Jatiya Melas' (National Exhibitions) which were held annually from 1867 to promote among other things indigenous manufactures<sup>21</sup>. National Circus is also believed to be the first Indian venture in a field so long monopolized by the visiting European circus companies. Later, Ramchunder became Director of Great United Indian Circus Company and also worked as a teacher of gymnastics in Government Normal School<sup>22</sup>. This precious little is almost all that is known about his personal life.

Ramchunder's first flight with Spencer on 10 April 1889 was reported in all the local newspapers and he was heralded as the first Indian aeronaut. *The Evening Mail* described him as a well built athletic looking man. 'The Viceroy' on the occasion was filled up with 20,000 cu ft of coal gas from a 6 inch gas main under the supervision of D. Coats Niven, the manager of the gas company, and took off at 3.30 p.m. After an hour's journey, they descended in a village named Palpakira-Kajipara, three miles away from Barasat. Newspapers also reported that Ramchunder sponsored by Gopalchandra Mukherjee and M. Mullick had the intention to run a balloon of his own and to make an extensive tour through India. Gopalchandra, a maternal grandson of Jatindramohan Tagore, was a wealthy landlord of Pathuriaghata and he promoted Ramchunder's endeavour to the very end<sup>23</sup>.

Ramchunder purchased Spencer's balloon 'The Viceroy' and christened it 'The City of Calcutta' and announced his intention to make the first solo ascent on 27 April 1889<sup>24</sup>. In the mean time, Spencer had made two more ascents. On 12 April, Calcutta saw the first parachute descent when Spencer took a leap from his balloon<sup>25</sup>. It is interesting to note that on this occasion Waldie & Co. was entrusted with making arrangements for hydrogen filling. On 18 April, Spencer made another ascent from the grounds of the gas company in a much larger balloon and was accompanied by Lieutenant Coningham of the Royal Canadians. The first aerial scientific investigation in India was carried out during this flight. They recorded the state of the atmosphere and air currents for Metereological Department of India by instruments loaned by the Department<sup>26</sup>.



## বেলুনবিহার যন্ত্র ।

Fig. 3. Wood-cut from a Bengali almanac of 1892 (Nriyatal Sil's Panjika). The picture is accompanied by a brief news about Ramchunder as a balloonist



A huge crowd assembled to witness Ramchunder's trip from the field of the gas company on 27 April 1889. But inclement weather came in the way. To save the captive balloon, the gas had to be released. When the wind subsided, to appease the impatient crowd, Ramchunder wanted to get the balloon refilled, but Spencer advised him not to take an unnecessary risk. An apologetic Ramchunder announced in the newspapers that the show had not been cancelled but only postponed till 4 May<sup>27</sup>. J. Reid, Asst. Manager of the gas company, supervised the filling up operation on that day. The name of the balloon, 'City of Calcutta', printed in huge letters on a long narrow strip of cloth was tied round it, but the wind tore its fastenings off. Mild and melodious music entertained the 8000 strong bonafide spectators while the preparation were on. Among the eminent people present were the Commissioner of Police and a few "Scientific gentlemen". The balloon was as usual enclosed in a net of hemp which terminated in an iron hoof beneath it. Suspended about 12 feet beneath the hoof was the 'Basket' or the car for the aeronaut. Several cork life-belts attached to the car bore the designation "Calcutta Balloonists Company" of which Ramchunder was the promoter. Clad in a light suit, wearing a sort of smoking cap, Ramchunder was quiet and undemonstrative as he shook hands with his friends before embarking. The contents of the car consisted of sandbags, grapnell hook (to secure the balloon at the time of final descent), an aneroid barometer (to determine height), a hamper of light refreshments and a binocular which hung from his neck. With Ramchunder waving his cap, the balloon took off at 5.10 p.m. It took a northerly direction and after 40 minutes of travel Ramchunder descended at Natagore, a village two miles north-east of Sodepur Railway Station. His own account of the trip was published on 11 May in *The Bengalee*<sup>28</sup>.

In an interview with a correspondent of *The Civil and Military Gazette* of Lahore in May 1889, Ramchunder said that he had already taken steps for embarking upon the career of professional balloonist and had started "Chatterjee's Ballooning Company". It was also made clear that he was open to engagements at any place where gas was available and intended to visit Allahabad, Lahore, Jeypore, Lucknow, Dacca, Cashmere and other large centres<sup>29</sup>. On 27 June of the same year, Ramchunder made his second ascent in 'The City of Calcutta' from Khusrubagh in Allahabad. Owing either to incomplete filling or poor quality of the gas, he faced serious trouble. Even when the ballast was completely thrown out from the basket, the balloon had insufficient lifting power. He did not want to disappoint the ten thousand strong crowd and had the basket detached from the balloon. He made the ascent seated in the iron ring (hoof). It was a very daring act, because without ballast a safe descent even by the most skilled balloonist is seldom attained. In any case, he landed without trouble in the compound of The Tract Society<sup>30</sup>. This testifies not only to the pluck displayed, but his complete mastery over ballooning.

#### THE FIRST PARACHUTE DESCENT BY AN INDIAN

During an interview soon after his first solo ascent Ramchunder was asked by the correspondent of a Lahore paper "What about the parachute? Do you contemplate emulating Mr. Spencer in this fact also?" Ramchunder replied: "Certainly, I begged Mr. Spencer when he was here to allow me the use of his parachute, but he threw cold

water on the matter, and said something about not wishing to be a party to a sensational suicide. But I am getting one from England, and intend giving my first parachute exhibition in Bombay....<sup>31</sup>.

It has already been mentioned that Spencer was the first in India to demonstrate parachute descent. His first parachute display in Calcutta took place on 12 April 1989<sup>32</sup>. Almost a year later when Spencer visited Calcutta next, he did allow Ramchunder to use his balloon 'The Empress of India' fitted with a parachute. The change in opinion about allowing Ramchunder the use of the parachute clearly indicates that Spencer was convinced that the deftness and skill acquired by Ramchunder over the past few months left very little scope for doubt. Ramchunder, the first Indian aeronaut, set off on 22 March 1890 at 5.30 p.m. from the Tivoli Gardens and Calcutta was thrilled to witness him gently floating down borne by the parachute<sup>33</sup>. It may be pointed out here that 'The Empress of India' was the balloon which was earlier used by Spencer also for his parachute descent. Not all balloons lent themselves to making parachute descents. Those were the days when the parachute was kept hanging by a cord from one of the ropes of the net in which the balloon was enclosed. This cord, which could be broken by a weight of about 80 lb was severed by the weight of the balloonist as he took the plunge. The balloon had also to be provided with in-built arrangements, so that it could be tipped upside down after the aeronaut had made his jump to let the gas off. Otherwise, rid of the aeronaut, the balloon would shoot upwards<sup>34</sup>.

When Ramchunder took off on 22 March, among those present were His Excellency, The Amban, the Chinese Ambassador and Percival Spencer. After his successful parachute descent, Ramchunder was brought back to the balloon field at Tivoli Gardens and given a public reception. On this occasion, Spencer in his speech said that Ramchunder took the leap from an altitude of about 3500 feet and "he accomplished the feat with as much coolness and reserve as it could have been done by anyone on earth". He presented Ramchunder with a medal having the inscription "From Percival Spencer, Aeronaut" and containing an engraving of a parachute. On the obverse was inscribed, "To Ram Chunder Chatterjee, in commemoration of his making the first parachute descent — 22nd March 1890". The report in *The Statesman* on the next day chose the following for its opening sentence, "The performance at the Tivoli Gardens yesterday afternoon was remarkable; for one thing in fact, it was an event in the history of India"<sup>35</sup>.

We owe to Abanindranath Tagore, the great Indian artist, a vivid eye-witness account of Ramchunder's first parachute descent<sup>36</sup>. It was also observed and described by Jogindranath Sarkar<sup>37</sup>. Abanindranath had family ties with Gopal Mukherjee, Ramchunder's patron. A scene of brisk activity by Ramchunder and his team in Mukherjee's house, soon after the parachute descent, was also described by Abanindranath. He was, however, mistaken when he ascribed it to balloon-making. Had they been working really with *Tussur* silk, as mentioned by Abanindranath, it could only have been parachute and not balloon-making. *Tussur*, a variety of Indian silk, was ideally suitable for balloon's envelope but for its cost and the narrowness of its 'gores'. *Tussur* then available was only 18 inches wide, whereas the silken fabric used

for making 'The Empress of India' was of 44 inches width. Even then there were 24 gores in the balloon (28 ft diameter). The parachute attached to it was of 8 ft 6 inches diameter<sup>38</sup>.

'The City of Calcutta' was not meant for parachuting, but Ramchunder soon procured one suitable for the purpose and named it the "Star of India". By the end of November 1890, he made an ascent from Tis Hazari of Delhi and descended by parachute from this balloon. This earned him a prestigious reward from Nawab Jalal-ul-Dowlah Muhammad Mumtiaz Ali Khan<sup>39</sup>. From Delhi, he went to Lahore and made a parachute descent on 9 March 1891 after he took off from a ground adjacent to the Town Hall<sup>40</sup>. After Lahore, he performed at Rawalpindi<sup>41</sup>. He was then invited by the Maharaja of Indore in November 1891 to put up a show before the Viceroy<sup>42</sup>. From Indore, he went to Agra and made a parachute descent on 27 February 1892<sup>43</sup>. Mid-April 1892 found him in Benares. From Benares, he went to a native state and it was here that he met with the dreaded accident. He was seriously hurt when he descended on a hill<sup>44</sup>. The injury ultimately proved fatal for him and he breathed his last in Gopal Mukherjee's garden-house near Calcutta on 9 August 1892<sup>45</sup>. In the perfunct obituary, the cause of his death was, however, stated to be pneumonia. The last days of Ramchunder as well as the cause of his death are shrouded in mystery. Remarkably enough all the major Calcutta papers which helped him acquire the image of a hero preferred to maintain silence even after his demise. In all probability whoever promoted or lauded Ramchunder's endeavour suffered a pang of conscience and the undignified silence gradually engulfed Ramchunder and banished him into oblivion.

Major Harry Hobbes, a long-time resident of Calcutta, in his memoir wrote that Ramchunder had a daughter "as plucky as her father and she also went up several times"<sup>46</sup>. Hobbes' statement is corroborated by a contemporary 'Kalighat-pat' or picture executed by the famous 'bazar-painters' of Kalighat in Calcutta. Fig. 4 is in all probability a depiction of Ramchunder's daughter making a parachute descent. The balloon from which he took the leap can be seen at the top left corner. Please note how its dimension has been reduced to take care of the perspective. Rid of the balloonist's load it has shot up. Fig. 6 also depicts the balloon in a similar way. Probably this picture was conceived as a tribute to Ramchunder. The hat and the attire should not be taken at their face value for attempting a different interpretation. We must remember that on the occasion of his first parachute descent "he wore a close-fitting jacket, with 'violet-shot trousers' and looked every inch an European even to collars and cuffs"<sup>47</sup>.

#### OTHER CONTEMPORARY INDIAN VENTURES

Prabodh Chandra Laha trying to emulate Ramchunder took a ride with Spencer on 15 February 1890 in the 'City of York' from Calcutta<sup>48</sup>. It was a gigantic balloon and accommodated five people, including Laha. Laha made his first solo ascent on 8 March 1890 from Tivoli Gardens, Calcutta in the balloon 'Viceroy of India' which he had purchased from Spencer<sup>49</sup>. After a few failures in Calcutta, Laha made his next successful ascent from Kanpur in March 1892<sup>50</sup>.



Fig. 4. Kalighat Pat: Is it Ramchunder's daughter?  
[Source: Ajit Ghosh Collection (Birla Academy of Fine Arts)]

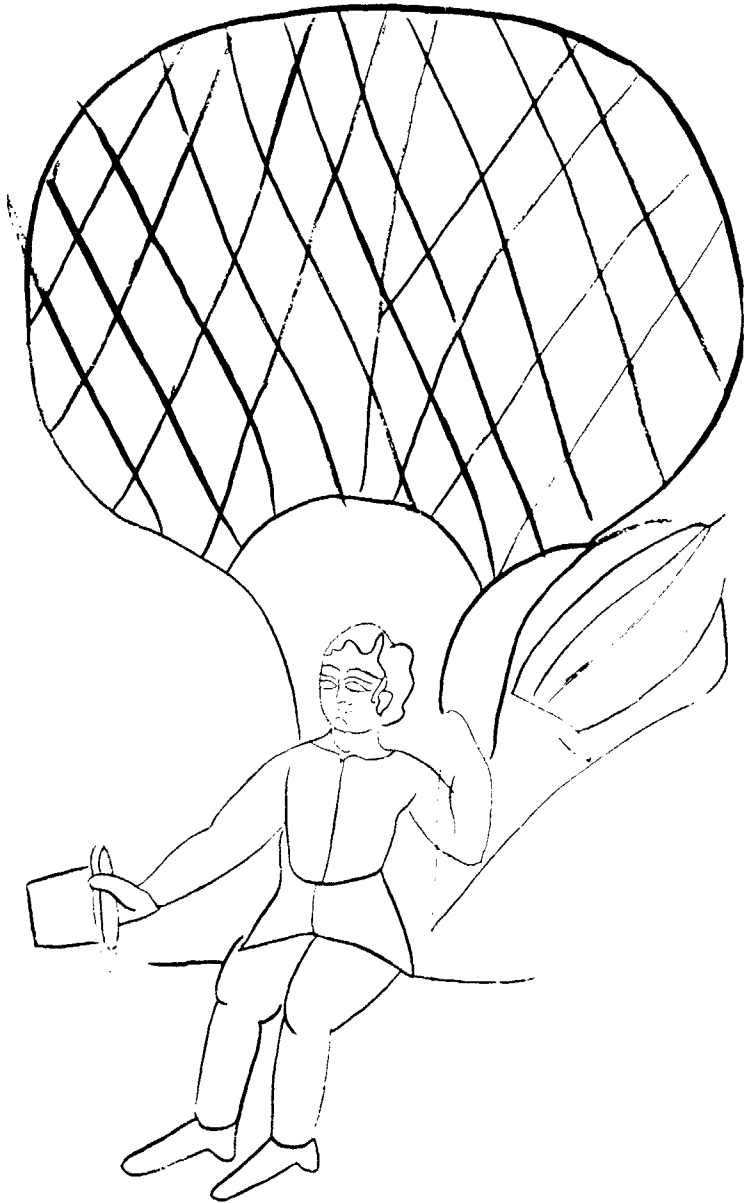
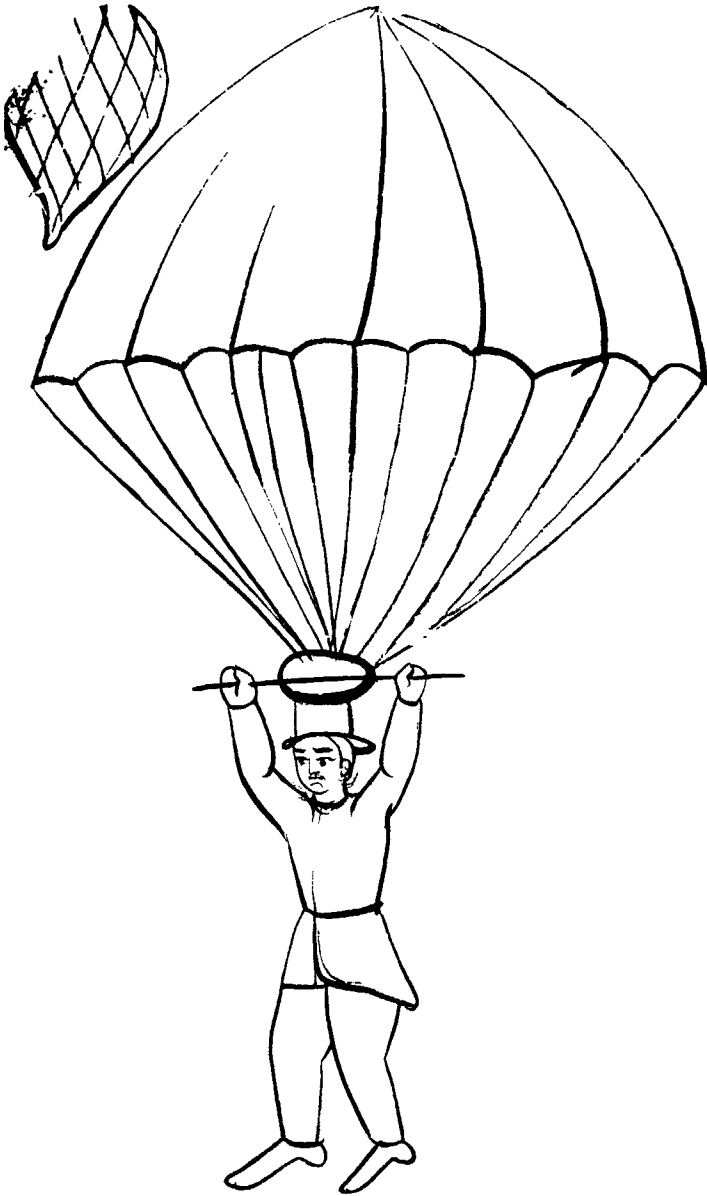


Fig. 5. Kalighat Pat: Ramchunder and his balloon fitted with a parachute [Source: Rabindra Bharati Society]



**Fig. 6.** Kalighat Pat: Ramchunder is coming down borne by the parachute.  
On the top left corner is the balloon  
[Source: Rabindra Bharati Society]

The third Indian balloonist, Jogeshchandra Chaudhuri, came from a completely different background and his purpose was also altogether different. Jogeshchandra, Ashutosh Chaudhuri's younger brother and married to Surendranath Banerjee's daughter, is even to-day commemorated as a famous barrister. With a double M.Sc. in physics and chemistry, he started his career as a Professor at the Metropolitan College of Calcutta<sup>51</sup> founded by Iswarchandra Vidyasagar, the colossus of the 19th century India. Jogeshchandra was the first Indian to make a balloon ascent for scientific purpose. He was then on the staff-role of the Metropolitan and Vidyasagar was still alive. *The Statesman* on 22 February 1890 carried this extraordinary announcement:

TO-DAY SATURDAY TO-DAY

AT 4.30 P.M. PROMPT

MR. PERCIVAL SPENCER

WILL MAKE A

Scientific Balloon Ascent

IN HIS

"City of York" Balloon,

Upon which occasion he will be accompanied by,

D. Coats Niven, Esq.,

Manager, Oriental Gas Co.,

Mr. F. Kapp, Photographer and Professor Chowdhurie of the Metropolitan Institute  
For the purpose of making scientific researches in the air by means of Scientific  
Instruments and Photographic Apparatus.

On the day following, the same paper reported that the balloon took off from Tivoli Gardens and reached an altitude of about three thousand feet. Spencer held the balloon virtually static for about an hour at that altitude, so that Mr. Kapp could take aerial photographs and Prof. Chaudhuri and D. Coats Niven could conduct the scientific experiments. It is a pity that neither the results of the scientific investigations nor the first batch of aerial photographs of India were published.

#### CONCLUSION

The uselessness of ballooning for the sake of mere entertainment was more than once commented upon in a number of contemporary papers. Prior to Ramchunder's first solo attempt, *The Bengal Times* published from Dacca wrote, "Should he come to grief, which is likely, everyone who has encouraged him will be guilty of abetting suicide: nor will local authorities be blameless. Without any previous knowledge or experience of aerostation, such an attempt is, we believe, merely a tempting of providence and should be made penal"<sup>52</sup>.

*The Indo-European Correspondence*, a Christian paper of Calcutta, also bitterly criticised the unethical practice of naming an act entertainment when it involved risk of injury or even life. Father Lafont, the great teacher of St. Xavier's College, was the scientific columnist of 'Indo'. Spencer's first parachute descent in Calcutta found him commenting, "We give him credit for forces of will and intrepidity, but would prefer to see these qualities directed to a more worthy subject, instead of being wasted in 'air'. There seems so little to applaud in an act however daring in itself, but performed without an object"<sup>53</sup>. After Spencer's narrow escape during an ascent from Allahabad where the hot air balloon caught fire during inflation, the same paper on 22 May 1889 was merciless in its criticism, "... the public entertainment of parachuting is likely to become as popular as ever. It is only the chance of seeing a poor fellow break his neck, as Mr. Punch wisely remarked, that gives entertainment its seat".

However, when the same two papers reported Ramchunder's activities, the difference in tone was remarkable. After Ramchunder's first solo ascent, *The Bengal Times* wrote, "Babu Ram Chunder Chatterjee, on whose devoted head, remarked a native writer, all sorts of ridicule for his enterprise have been heaped, his misfortune being that he belongs to the Bengali race, has survived the infliction. The 'Babu-Balloonist' has managed to discomfit his detractors by his very successful ascent on Saturday last. The result is that of all papers, *The Englishman*, the man of jeers and sneers, has been obliged to sink at the foot of this 'Babu-Balloonist'. Well, that is not quite an ungrateful picture, and we should like its coloring to remain permanent. Those who read *The Englishman* will know what truth there is in this"<sup>54</sup>. *The Indo-European Correspondence* remarked, "The Bengali Baboo, overcoming his natural timidity, penetrated into cloudland ... The Baboo has also an eye to business; he talks of ballooning on his own account"<sup>55</sup>. On another occasion, 'Indo' paid tribute to Ramchunder as "the venturesome Bengalee aeronaut" and commented, "One would hardly have expected a Bengalee Baboo taking to ballooning of all things..."<sup>56</sup>.

Following these comments, it must be evident that ballooning in India acquired a different significance under the prevalent colonial conditions. Ramchunder's endeavour was an extension of the patriotic gesture. It was a symbolic assertion of the spirit of nationalism — an effort to come to terms with the Europeans at their own game. In the history of technology, Ramchunder's contribution is to be judged in the colonial context and not in the hardware category but in the socio-psychological surface. The socio-psychological effects of introduction of the so-called 'off-the-shelf' or 'alien' technology in a colony like India have been wrongly emphasized by many a modern historian but perhaps none so than Henry T. Bernstein. Bernstein, the erudite author of a treatise on introduction of steam boats in India, while summing up wrote, "Iron boats full of steam and fury may well have left an impression with unsophisticated villagers, adding to those which led some to look on the English as wonder-working people akin to the demi-gods of the Hindu pantheon. It would be impossible to measure precisely how much the British position in India rested on this point in the psychology of the people. A feeling of awe among a district officer's subjects helped to exalt his commands and



carry them far, facilitating matters when vast territories were to be administered by a handful of men . . . . If a young civil service cadet, fresh out of the East India College, Hertfordshire, happened to be posted to a district along the Ganges, perhaps his connections with men who could make boats go by smoke and fire might have been an additional cause of the inspiration he drew from Muslim and Hindu eyes<sup>57</sup>.

Ramchunder at least saw to it that as far as ballooning was concerned it left no impression with the Indians in spite of their "natural timidity" to look on their conquerers as wonder-working people.

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