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IN SEARCH OF ROBERTSON'S FANTASMAGORIE

MIKE BARTLEY

When I met a founder member of the Magic Lantern Society of Great Britain, Janet Tamblin, in 1979, it was with the intention of seeking out the possibility of combining magic lantern with puppetry. Little did I know at that time that this idea had already been fully explored and exploited 200 years previously by Robertson and his predecessors. In fact until I read the patents of both Robertson and Philipsthal, I, like so many others, thought only in terms of a very clever slide show and was at a loss to work out how it had been achieved. However, Janet had been experimenting for some time with the psychological impact of very dim pictures in total darkness, ghostly images and moving lanterns, and so had half the story unravelled. The other half was more difficult. Despite translating the whole of Robertson's *Memoires* (Vols. 1 and 2) the secrets were well hidden; red herrings abounded and the only answer was to experiment.

Achieving the projections on smoke was comparatively easy and this was achieved in the Magic Lantern Theatre, Monmouth, in cooperation with Pierre and Françoise Levie one memorable weekend. Janet painted the images, the theatre filled with dense smoke, and we coughed and coughed; but we persevered and eventually were rewarded with a beautiful and fragile image of a woman suspended in space. As Françoise describes in her book, we had finally achieved success. Notwithstanding, there have been occasional times when due to conditions which we had not come up against before, it has been

elusive. And so we had the beginnings. The rest has come only by a combination of the clues Robertson has left us and actual experiment – first of all with copies of all the known artifacts which he has left behind and then with the experience of using them, from the fleeting descriptions of the rest of the show, gradually assembled from visual sources which were available to him.

By Autumn 1996 we will finally have assembled and rehearsed the reconstruction of the performances at the Convent des Capucines.

Recently Laurent Mannoni has published his book *Le Grand Art de la lumière et de l'ombre*, which is in my opinion the most detailed and diligently researched work on pre-cinema to be published so far. In that work is the report made by the engineers who were responsible for reporting to the courts in a lawsuit instigated by Robertson against Clisorius who, he claimed, was violating his patents. It includes a description of the location and apparatus of the two shows and is a great help in establishing the relative scale of the operation, but to those who have followed in Robertson's footsteps, it also makes one aware that somehow both showmen had managed to spirit away much of the equipment and settings. Robertson has at this time already become a master at concealment despite his outward statements that all has been revealed.

Here then is an English translation of that report by permission of Laurent Mannoni.

REPORT BY THE SCIENTISTS JAMIN AND RICHER ON THE PHANTASMAGORIE OF ROBERTSON AND THE PHANTASMAPARASTASIE OF CLISORIUS

(17th July – 2nd August 1800)

In the eighth year of the French Republic, the twenty-eighth Messidor, [17th July 1800], at eight o'clock in the evening, we Pierre Noël Jamin, Professor of Physics not connected with the Patent Office, resident in Paris, Palais du Tribunal, expert nominated by the citizen Léonard André Clisorius, sole proprietor of the establishment known in Paris under the name of phantasmaparastasia, resident in Paris, rue Coquillière No 400 and of the citizen Martin Aubé [Aubée], painter and artist, not subject to patent, and Albert Aubé his son, resident in Paris, rue de Temple, opposite the rue Portefoin, and citizen Jean-François Richer, mechanical engineer to the government, not subject to patent, resident in Paris, rue and enclos des Capucines, expert named by citizen Gaspart Robert called Robertson, Professor of Physics not subject to patent, resident in Paris, rue and enclos des Capucines, division of the place Vendôme, we have arrived at the request of the said Robert in the building, previously [hotel des] Fermes, rue de Grenelle [Saint] Honoré, in the premises of the phantasmaparastasia, where having arrived in the hall in front of that which contained the audience, have attended to the breaking of the seals placed on the door of the said hall of spectacle which was opened in our presence, after having entered, the

CONTENTS

1. In search of Robertson's Fantasmagorie, Mike Bartley
6. William Emerson: a footnote to Hecht, Deac Rossell
8. Coventry and Midland Photographic Society: Victorian prize-winning lantern slides, Philip M. Banham
10. On the Origin of Moving Slides, Dr Hanke Lange-Fuchs
15. *Le Grand Art de lumière et de l'ombre* reviewed by David Francis
- 15/16. More lantern music



Fantasmagorie de Robertson dans la Cour des Capucines

citizen Robert presented to us the judgement rendered by the Tribunal of Peace of the Market Division of the Interior, the fourteenth prairial last [3rd June 1800], duly signed and recorded, which in order to uphold the rights of the parties, orders that he will proceed to the verification of the instruments, tools and methods, by the two expert scientists who will be respectively named, the one, by citizen Clisorius, and the other by the said citizen Robert, or take charge, of which experts compare the machine of the defendants and of the petitioner, establish the difference, if there is, all to uphold the law-suit for which the parties or their agents may, or can be present and to give proof of acts of requisition and observations that they judge appropriate for the legal action taken and report on the state of the parties.

And following the summons made at the request of the citizen Robert by judicious act of the citizen Thiebaut bailiff, on the date of the twenty-second messidor [11th July 1800] [p.3] the present month duly signed and recorded with the said citizen Clisorius and Aubée father and son, to appear at the site where we are on the twenty-fourth of the said present month to be present if required for the operation and verification by our ordered experts by the aforesaid judgement with the declaration that comparison will be made or to find there something for them, it will be carried out by us as much in absence as in the presence and on which day twenty-four seals have not been able to be lifted, making difficulties raised by the parties, the attendance has been postponed from yesterday and from the previous day and we have returned, conforming to the judgement, proceeding to the operation announced under the reservation of rights respective to the two parties, and signed, Robertson.

Approved 23 words struck out.

This complied with, we would have proceeded to the said operations which would have required opening the door of the room, we perceived that it was almost night, that it was impossible to continue the operation [p.4] entrusted to us by the said judgement for which we have, in agreement with the parties present and their counsels, postponed the attendance to the first thermidor next [20th July 1800], at 4 o'clock precisely, at which day and hour all parties present have promised to attend without citation and with us sign

under all the reservations of their rights, approve eleven words struck out,

P.N.Jamin, Richer, Clisorius, Martin Aubée, Guiffrou.

And the said day, the first thermidor year eight of the Republic [20th July 1800], at 4 o'clock precisely, in accordance with the postponement here before, we, Jamin, and Richer, expert scientists here before named, qualified and resident, we have arrived in the afore mentioned building of Fermes, locality of the phantasmaparastasia, where being we have found the citizen Robert, whom we require, conforming to the above mentioned judgement, proceeding to the operation [p.5] ordered by it, in consequence, and after the seals attached to the entrance door of the room set aside for the audiences of the spectacle of the phantasmaparastasia have been lifted, we ourselves entered the said room and proceeded as follows.

We have noted in the said room a lamp suspended from the ceiling by three chains and of which, the wick appears to be controlled by a thread of strong wire, disposed horizontally and which appears to lead to the back of the place where we are.

Also to the centre of the said room, a curtain hangs freely, upon which is painted a tomb supported by some caryatides, which curtain descends immediately the length of a cloth hung vertically at a distance of about two thirds of a metre from a partition situated behind and between the said cloth and the said partition, is a little door laterally communicating with the second place.

And finding nothing more to note in the said place of the audience, we have entered the said second place where being we have noted a structure in wood furnished with four crossbars of which the back is furnished with a cushion which appears to be meant to prevent the bump of the box at the extremity of the frame which we have found lying in the direction of the screen, and which seems to have been attached beneath to the square of flooring by some feet with points, the said structure being about three and two third metres long and two thirds of a metre wide [p.6] of which structure citizen Clisorius told us he had placed vertically against the wall before his departure for Switzerland and belonging to the citizen Bacleau [name difficult to decipher] – scientist.

Also a square box, being two thirds of a metre long in one direction and three quarters of a metre in

the other. At the back of the said box a door, closed at will, and in front a long square tube sticking out in front of the apparatus by about a half metre long and a quarter metre wide, in which a glass lens is mounted on a chassis moved by hand in a slot, the said box is carried on a table having four feet joined together by some crossbars to the bottom part, of which the two lateral are each furnished with two rollers appearing, from our experience, to be intended to roll on the chassis.

Two plates, one of copper and one of tin plate, intended for the imitation of thunder.

A cardboard tube, intended for the imitation of a hailstorm. Also a tube of a third of a metre square being a quarter of a metre high on the partition which separates the second [room] from the third, [p.7], appears to be intended to carry a glass lens. This box appears to be closed by a cover hinged on the upper part, which [the cover] shuts it off by means of a cord communicating with the third place, the tube is precisely in the direction of the screen.

Having found nothing more to note in the said place, we passed into the third where being, we have noted in regard to the tube of which we have spoken, the body of a quinquet with four burners [here a misleading phrase: 'five quinquets of which four have phials of glass without reflectors'] ranged obliquely in the direction of the tube, to the left, two reflectors and below three, of which one has a reflector, and finally we have noted that the three places face in the same direction and the back of the room in which we are, and opposite the above named tube is painted black.

After which, and having attended until nine o'clock and having found nothing more to verify we have had to retire, indicating the attendance on the fifth of the present month at midday in the locality of the citizen Robertson, at the enclos de la rue des Capucines, where the parties and their counsels [p.8] have promised to appear to guarantee our operations and, have the said parties and their counsels, signed with us, approving thirty-nine words struck out, *P.N. Jamin, Richer, Robertson, Clisorius, Martin Aubée, Guiffrou.*

Fifth thermidor [24th July 1800]. And the said day the fifth thermidor at midday, we are met conforming to the indication here before in the residence of the

citizen Robert, located in Paris, rue et enclos des Capucines, and having found here the said citizen Robert, of whom we have required of, in the presence of the citizen Clisorius and Aubée, to proceed with the continuation of our operations conforming to the judgements wording of the other part, of which requisition obtained, we [here, difficult phrase: 'have proceeded such that it is'] going to proceed, when the citizen Clisorius has observed to us that we should proceed in accordance with the regulations and avoid describing all the machines which are at the establishment of the citizen Robert and which may be irrelevant to the dispute, we have three operations to carry out, the first refers to the patent of invention which says [p.9] to have the citizen Robert, for the examination of the machines contained in the patent. The second to establish the machines stated in the said patent which are to be found in the home of the said citizen, and describe them. The third is to compare the machines of the citizen Robertson with those of the citizen Clisorius, and we require that in following this natural order, the citizen Robertson be held to present to us immediately his patent.

At that moment the citizen Robertson presented to us the patent and followed by introducing us to the room of the audience where being, we have seen in the middle of the room a lamp suspended by three chains together, joined at the top; also, a guided thread partly in cord, partly in iron wire, linking the mechanism to be taken up into the body of the lamp and leading behind the cloth.

The citizen Clisorius has observed that the lamp of Robertson differs from that of Clisorius and that the combination of three branches is longer [p.10] here from the ceiling than at the place of the citizen Clisorius and that the thread operating it is partly metal and partly cord.

Have seen a curtain upon which is painted a tomb, supported by a wire, this curtain rises perpendicularly. Clisorius observed to us, when at the far end of the room that it differs in that it is entirely hung with black drapes. Behind is a transparent cloth, which is a half metre away from the partition, of which the separation is the means of communication from the first to the second room.

Finding nothing more to record in the first room, we passed into the second. There being, we observed a framework of wood attached to the floor with some spiked feet, which had such dimensions; four and two thirds metres long, two thirds metres wide, assembled with three small crossbars, and a fourth, large, fitted with a cushion [p.11] to take the shock of the machine which should roll above and which we have made a description.

[Note: The above description of the wooden frame is consistent with a description of a wooden plateway or track, used in mining at that time to allow smooth movement along tunnels of trucks loaded with coal. The approximate two foot width is consistent with the narrow gauge track of 60cm. Robertson was the son of a mine owner and would have been familiar with this form of smooth transport. *Mike Bartley*]

This machine is a quadrilateral box two thirds of a metre in one direction and a little more than half a metre in the other, the height is three quarters of a metre. On the front is a square wooden tube of a little more than one sixth of a metre square, entering into the box by one ninth metres and having a little less than half a metre projecting. In the tube is a glass lens in a chassis, which is moved by hand in a lateral groove. It [this machine] is carried by a table of one metre in height of which the four feet are fitted with crossbars to the bottom. To each of the four legs is attached a roller which allows the movement of the box on the rail in the direction of the cloth

And after having attended for an hour and a quarter, we have postponed our [p.12] meeting to the next day, sixth thermidor year eight [25th July 1800] on which day the parties, their agents being able, have promised to come without citation, and have signed, *Clisorius, Martin Aubée, Guiffrou, Robertson, P.N. Jamin, Richer.*

C I S O R I U S,

Vous êtes prié d'honorer de votre présence le grand Spectacle, nouveau et extraordinaire, composé de Fantasmagorie et divers chefs-d'œuvres physiques et mécaniques qui font l'admiration des curieux de l'Europe, dont l'ouverture se fera demain, Décadi 30 nivôse, à la Salle des ci-devant Augustins, où on a fait les dépenses et travaux nécessaires, afin que le public s'y trouve agréablement.

Le citoyen *Olivier*, associé avec le citoyen *Demmenie*, hollandais, professeur de physique, de chimie et d'optique, donneront une grande représentation, de leurs expériences physiques, mécaniques et d'optiques, consistant en apparitions de spectres, évocations des ombres des personnages morts et absents, et, en divers objets mécaniques que l'on n'a jamais vu dans cette perfection.

L'ouverture se fera par deux figures mécaniques de grandeur d'homme, l'une représentera une jeune grecque et l'autre le jeune paillasse; leurs mouvements de têtes, jambes et corps, aisés, sur tout naturels, et leur adresse sur la corde tendue, étonneront les spectateurs; la belle *Elizima* dans son coffre, chef-d'œuvre mécanique extraordinaire, l'Auberge Hollandaise, pièce physique, le Meunier Hollandais dans son moulin, la Pendule à désir, le temple de la Chine et plusieurs autres pièces. Toutes les représentations seront variées.

Ce spectacle sera suivi par la *Fantasmagorie* qui démontre d'une manière également amusante et instructive les moyens que les anciens fourbes, ces insignes charlatans, employoient pour induire en erreur les esprits foibles et crédules.

Dès que le rideau se lève, on voit des éclairs, le tonnerre gronde de la manière la plus effrayante, les vents s'agitent et s'élèvent, la pluie paroit tomber; alors toutes les bougies s'éteignent, et des fantômes de toutes les formes et de toutes les grandeurs paroissent voltiger au milieu de la salle: ils font une telle illusion qu'on croitroit pouvoir les toucher: l'orage recommence encore, et les images de différentes personnes, dont la ressemblance parfaite étonnera les spectateurs, paroîtront tou-à-tour. Ces divers fantômes se représentent sous une multitude de formes inconcevables; les uns sortent de la terre en nuages, semblent se revêtir d'un corps et s'élever ensuite: les autres paroissent dans le lointain, s'accroissent par degrés, et après s'être approchés des spectateurs se retirent et décroissent de la même manière: il en est qui s'élèvent en face des spectateurs, et lorsqu'on veut les toucher, ils disparaissent aussitôt. Il est vraiment impossible de décrire ces apparitions: elles sont si extraordinaires, si inconcevables, que dans un siècle moins éclairé que le nôtre, on seroit tenté de croire à la magie. Nous nous dispenserons donc d'entrer en de plus grands détails: mais nous prévenons les citoyennes que ce spectacle n'est que le fruit d'une étude approfondie de la physique et de l'optique réunies, et qu'elles ne doivent pas plus craindre d'en être épouvantées que l'on a à redouter les effets, souvent effrayans, de la lumière de la lune.

Le spectacle sera terminé par le *Ballet des Sorcières*, ou la *Multiplication*, illusion unique.

Le prix des places sera comme il suit;

Aux premières, 3 francs 25 centimes, ou 3 escalins, aux secondes; 2 francs 50 centimes, ou 2 escalins, aux troisièmes 75 centimes, ou 1 escalin.

Non compris la rétribution des indigens.

S A L U T,

Olivier.

As can be seen by the facsimile of a handbill of the period, some spectacles of 'fantasmagorie' were given in Brussels in January 1800. Robertson is not mentioned in the text but it suffices to compare the style of this circular and the description which is given of the proposed astonishing spectacle from Brussels to the documents attributed to Robertson, to arrive at the conclusion that the citizen Olivier and his partner Demmenie could have been some assistants, being imitators of the Liegeois scientist, extremely famous in his time.

And the said day the 6th thermidor, in consequence of the meeting the previous day, we met at the residence of the citizen Robertson, where, to his prosecution, we have proceeded to the operations ordered by the judgement.

And at this moment the citizen Albert Aubée (son) has appeared, who has said that he has approved of all that has been done in his absence, and for the defence of all his rights, he does not oppose that which has preceded of the operation ordered by the said judgement and has signed Albert Aubée.

Being also appearing, the citizens Clisorius and Martin Aubée before named, they are to observe jointly with the citizen Albert Aubée son, what relative to the structure differs from that of Clisorius, and that in this, that it is not joined by crossbars, that, the holes which exist at the moment are only of the crossbars placed after cutting to give the apparatus [p.13] of citizen Robertson the resemblance to the apparatus of citizen Clisorius, which their mobility it proves.

Secondly that the principal branches of the structure differ from the representation of that given by the citizen Robertson by a measure which is ruled the length of each part of the structure, that each one of the said parts is sheathed with an iron plate, and that the said structure joined there the two lateral walls, and at the place of Clisorius they do not join them.

Passing to the quadrilateral box, they observed that the said apparatus has been cut down, so that it appears as follows. That the feet of the table which support the said box, the sides of the table, and the box itself are new, that the interior of the box if it were used, would be blackened by the smoke of the quinquet very greatly that it is not at this moment so, that the rollers are not nearly so impregnated with an abundance of oil as that which covers the sides of the structure, that the box which should have been in use during the four years that the citizen has made the Phantasmagorie, should bare traces of being handled, that it is however not used or rubbed, that the said box when it is made to move, produces a noise which has not been heard by any of the audiences, that the roughness of the wheels proves this again that which they have put forward, that they allege that this machine [p.14] is a crafty copy of that of citizen Clisorius and that it is not the same as that which conforms to the pretended patent, seeing that which is on the patent is not fitted with pulleys nor with the batten to support them, that the citizen Robert in wishing to imitate the citizen Clisorius has created a very bad copy, and that in his, the rollers of the said Clisorius are encased in the lateral sides a certain distance from the feet, lifting or lowering themselves by means of retracting or by hiding a rod making contact with the lateral sides.

They added that the groove on the inside of the tube is lateral and makes a great deal of noise when moved, that the said groove does not exist in that of Clisorius, that in his tube the glass moves by means of a cord. That one other proof of the newness of the tube is the absence of a closure, that he has not still had time to put a door on the lateral side to close the opening that he has made, that there is no chimney projecting. That it would still be possible to state an infinity of differences, which had not been addressed in the copy of that of Clisorius ; but to cut short they passed on to an examination of the feet which truly served to carry the case, which [feet] put on the [p.15] structure and compared in its movement, they found it infinitely more smooth, sliding more easily, and without noise, that the oil with which the feet are impregnated showed that it [the case] was employed before the feet herein described, that they pretended that the machine of the citizen Robert presented as an object of comparison is incapable of producing some effects which he produced daily in public with his other machine that he has removed from our view, and that for the proof he asked the citizen Robertson perform before us with the machine such that it is without any accessory, asking that the focus of the lens be measured, reserving in addition of making by the following such other observations that from the objects present will be born.

After the observations above about which the citizen Robertson said that he did not wish to reply, we, citizens Richer and Jamin have continued our examination.

We have begun by measuring the focal length of the above mentioned lens, which we found to be in the region of a metre.

And then we have found two other lenses mounted at the front which citizen Robertson said to us were intended for the same use.

At the partition at the back of the second room and in the direction of the cloth, we have noticed a square wooden tube, length three decimetres [p.16], width three and a half decimetres, and projecting from the partition by one decimetre, this tube carried a glass lens mounted, being twelve centimetres in diameter and fixed in place. Having noted on the upper part a door or cover made to fall retained by a cord which is able to communicate with the third room which follows where we are.

Also, a table of white iron, serves to imitate the thunder, and a roll of cardboard, serves to imitate the hail. And not having anything more to observe in the second place, we have passed into the third.

There we have noted that the tube of wood continues through the partition in which it is fitted, there being one fifth of a metre projecting on our side. We have seen on each side of this tube a body of a lamp with four branches in an oblique direction to that of the tube. We have also noted that these quinquets are each fitted with a foot of wood. The back of this third place is hung with black.

Not having anything further to examine in the three places above mentioned, we have closed the present legal proceedings, and will be returning to the verification of the methods which will commence at the establishment of citizen Clisorius on the ninth thermidor [28th July 1800] at five o'clock precisely. Approved sixty-one words struck out.

P.N.Jamin, Richer, Robertson, Guiffrou, Clisorius, Martin Aubée, Albert Aubée,

[p.17] And on the said day ninth thermidor year eight [five] o'clock, before us experts afore mentioned and undersigned, after having invited the citizen commissioner of police to be present for the recognition of the removal of the seals, that which he has obeyed, there appeared before us the citizen Robertson, alone named, qualified and domiciled, assisted by the citizen LeBon, and the citizen Clisorius and Aubée father and Albert Aubée son also previously named, qualified and domiciled as before, have signed with us the said citizen Clisorius and Aubée father and son, assisted by the citizen Delahaye who signed with them.

Clisorius, Jamin, Robertson, LeBon, Richer, Martin Aubée, Albert Aubée.

And the citizens Clisorius and Aubée we observe are astonished to see opened without their participation the door of the room which had been sealed, and that it had been done without them in the said room.

That in the end they are prepared to allow that this appears to demand our operation of the last attendance, but are interested that the citizen Robertson should not know his methods which he would be able to imitate, he, Clisorius would not proceed to the demonstration of his methods until citizen Robertson would record by writing on a paper that, being stamped with two stamps, two methods of operation, the paper to remain with the arbitrators. That until then he would not give any idea of his demonstration, so that the citizen Robertson would not be able to say his method is contained in his patent, that he suspected that his method was not that which he has indicated in the patent, and has signed with his counsels.

Clisorius, Delahaye, Martin Aubée.

[Here, 26 lines are very difficult to decipher. One understands that Robertson was 'not justified in raising the seals that had been made' that there is 'injury' on the part of Clisorius and Martin Aubée and that he 'does not reply more' to the questions posed on his methods. Robertson signed with his counsel LeBon.]

On what we arbitrate herein before mentioned and undersigned, considering if a means exists of reconciling the two parties, and avoiding the inconvenience that one of them appears to fear. Having by the consent of all parties present adjourned the sitting to the eleventh of the current month at nine hours very precise in the morning in the locality of the citizen [p.19] Clisorius where we are actually for the purpose of proceeding for verification of the methods that he employs, and to be followed without interruption proceeding to the home of citizen Robert-son, for the verification of the methods of the citizen Robert-son, at which day and hour the parties have promised to be present without being cited and have all the parties signed with us in this place.

Robertson, LeBon, Jamin Richer, Clisorius, Martin Aubée, Albert Aubée, Guiffrou and Delahaye.

And occurring on that day, eleventh thermidor year eight [30th July 1800], we Jean-François Richer and Pierre Noël experts above mentioned and undersigned, we are in execution of our postponement on the ninth of the month transported at nine o'clock in the morning to the hotel des Fermes, rue Grenelle [Saint] Honoré, where the spectacle Phantasmaparastasié is established, to proceed to the continuation of our operations, and where we have found the citizen commissioner who, after having verified the seals in our presence and that of the doorkeeper, they have been lifted and given to us entry to the said spectacle where we have proceeded as follows.

And at that moment that we have required, the citizens Clisorius and Aubée have come to demonstrate successively their methods and the employment of their instruments relative to the Phantasmaparastasié as below described. First operation.

The young citizen Aubée has drawn a figure that he has then cut out, he has suspended it upside down [p.20] by an opening in the top, closing a slot which he has said serves to advance and withdraw the figure. In the said box are two quinquets with reflectors to the left and right of the said box either side of the glass lens serving to light the figure. At the bottom of the box and to the side of the quinquets are placed some iron plates serving as shades to prevent the light from the quinquets shooting out rays of light on to the glass lens. When they have lit the two quinquets, the reversed figure is found painted upright on the transparent cloth, and in advancing or withdrawing the box on the chassis before described, the figure was enlarged or reduced on the transparent screen, and we are offered the working of the same effects and the same box without using the chassis, this we arbitrators accept, the said citizens have removed with pincers and a hammer the chassis

underneath the table serving to conduct the said table and the box on the structure before mentioned. Then the whole rests on the ground, the machine is advanced and retired and is found to be stopped in its movement at two thirds of a metre from the transparent screen by one of the feet with spikes driven into the floor, and presumed to be [p.21] there to attach the structure to the said floor. We have also noted that the said box in this manner is unmanageable having a rolling motion that it does not have on the structure. Then the citizen Clisorius observed to us that the aforesaid box serves only for the opaque bodies, and is not able to give us any other result, that he offered to make us see his means for the transparent bodies, at which the citizen Robert has replied that he opposed that of any other machine unfamiliar to the lawsuit being introduced into the said locality, which the operation for the experts is only for the purpose of verifying the objects which are under the seals and of comparing them with his, and that which demonstrated that the apparatus so present was able easily to serve for the transparent bodies and has signed,

Robertson, Clisorius

After this observation by the citizen Robert we have closed our experiments on this article and have requested from the citizens Clisorius and Aubée the use of the square tube mounted in the partition which separates the second room from the third. And the citizens Clisorius and Aubée have replied to us that as the square tube gives the same result for the opaque bodies as the box of which they have been showing us, they would achieve no more [p.22] from the said tube which we had noticed which no longer had a lens : upon which our request depends, they offer to show their method at once and have signed.

Clisorius, Martin Aubée.

At which the citizen Robert has replied that since they offered to show instantly their methods, and that the experts are only here to know them, he requires their offer to be accepted, since the judgement orders, and he has signed.

Robertson.

And considering that it is established between the two parties that the afore mentioned tube in the partition is able to operate the same effect and others more skilful, we have believed that it was useful to proceed to verification of the effects of this same tube, the citizen Clisorius however does not have the necessary lens for it to be suitable.

And considering that there is nothing more to establish in the locality, having stopped with the consent of all parties present, for us to go to the domicile of the citizen Robertson, to continue there our operations and having signed with all the parties, approved six words struck out.

Jamin, Richer, Albert Aubée, Martin Aubée, Robertson.

[p.23] And having arrived at the home of the citizen Robertson, with the parties appearing in the lawsuit, we have required the said citizen Robertson to demonstrate to us his methods and use of the instruments relative to the Phantasmagorie here before described.

First operation

The citizen Robertson has drawn a figure which he has then cut out, he holds it at first in his hand and then suspends it in the interior of the box in an upside down position, the figure is painted upon the transparent cloth the right way up. In the box is a quinquet with four branches placed at the side of the tube to light the said figure. Then the figure is enlarged and diminished in proportion on the transparent cloth according to that of the retreat and advance of the said box on its structure.

The citizen Clisorius demonstrates to us that when the figure has been reduced upon the screen to its natural size of the paper, that the rays of light from the box are spread out around the object, this does not take place in his and to him it is an imperfection, that besides there are two pieces of card on the

chassis laying flat which were not in the first verification and furthermore one has re-adjusted the opening of the door adding a curtain and requires us to verify the focus of the lens and has signed.

Clisorius, Martin Aubée.

At which citizen Robertson has replied that he would beg the expert citizens to verify if the box has the same door which it carried in the first [p.23] verification. As to the little rays of light of which Clisorius complains, they are due to the quibble that he has made to him about the more or less large dimensions of the object, of which one has taken the same steps to verify the size reciprocated. As to the focus of the lens, it is absurd to wish to establish the focus at ten in the evening, such as has been demanded. Besides it is established that in the verification made at Robertson's establishment, the experts found three lenses, and that he is able to operate with that which is most convenient. Besides to give more perfection to the object, he often uses a second lens, which prevents spherical aberration. and signed.

Robertson.

Second operation.

To operate with the tube mounted in the partition which separates the second place from the third, and which is furnished with a glass lens, the citizen Robertson after having lit the two quinquets with four branches and made an opaque figure appear on the screen which is represented in natural size, being only about a fifth of a metre. Following he showed us on the same screen his own figure augmented in the same proportions.

And the citizen Robertson is holding to these two operations, the citizen Clisorius after the afore-said operations, has required that he shows the method of a third, that is of a transparent body, as being part of the more essential to the phantasmagorie, and signed

Clisorius.

And the citizen Robertson has replied by saying that the operation above described appears to him more than sufficient to establish the identity of the uses, instruments and methods of the citizen Clisorius with his [p.25] own; he does not believe it necessary that he, with the experts, consent to the operation demanded by the citizen Clisorius, which can only have as an objective the setting of a trap either to the experts or to justice, since this operation cannot be made uniquely with the instruments found under the seals, that it is certain that he has brought in something in a handkerchief, that the citizen is not acquainted with, and does not wish to give admittance, and finally the judgement rendered between the parties, orders unique verification of the objects found under the seals, one should not be occupied with strange objects prepared or carried in after this time. In consequence and by means of this, our operations are terminated and that he will stay no longer than for us to present the results in the light of our knowledge and our conscience, he requires us to please end our legal process and has signed under all reserves and rights.

Robertson, LeBon.

And by the citizen Clisorius has been a reply that the judgement of which the citizen Robertson demands the execution, orders the verification of all the methods that are employed by the the prosecutors and the defendants, and that it was for the execution of this judgement that he had brought from his home in a handkerchief a magic lantern with which to represent the transparent bodies, the principal objects of the phantasmagorastie, and not to set a trap for us, but on the contrary to enlighten us to the reality; that the judgement does not specify [p.26] the objects uniquely under the seals, that it is wrong of citizen Robertson not to wish to give the method of the transparent bodies, and has signed under all reserves of his rights.

Clisorius.

Not having anything more to record, we have closed and stopped the present legal proceedings, we reserve to draw up our report later, and have signed with all the parties the said days and year as below, approved one word struck out.

P.N. Jamin, Richer, Robertson, Clisorius, Martin Aubée, Guiffrou, Albert Aubée, LeBon, opinion of experts.

The fourteenth thermidor year eight [2nd August 1800] of the Republic of France, we, Citizens Richer and Jamin, we being re-assembled in the cabinet of Physics of the said Citizen Jamin, are convened to write our respective opinions of the following legal action, and previously having compared between them, we have found them of such slight difference, that we believe mostly in the improvement of one only, after we have been enlightened reciprocally and been agreed in the draft which follows.

[p.27] It concerns a discussion between two operators of optical illusions relative to the instruments and methods which serve them to produce these illusions of pure charlatanism. We call by this name the effects which, without making any advance in any way nor making any progress to the cause of science, serve only to surprise the admiration and above all the money of the Public to whom one should be careful of explaining the action.

The two operators on the one part citizen Robertson Phantasmagoricien and on the other the citizens Clisorius and Aubée father and son Phantasmagorastiens. Myself Jamin have never known these last, having been named for the arbitrator. Whereas the citizen Robertson I have known for nine years. He called himself Robert, and has followed my free course of physics with a young man entrusted to his charge. I have not seen him since.

The question is to decide between the citizen Robertson petitioner, and the citizens Clisorius and Aubée defendants in this. Clisorius and Aubée are they initiating the instruments of which Robertson pretends only he make use of by virtue of a patent accorded to him. We do not enter here into the question of knowing if in virtue of the charge, the Citizen Robert had any right without any previous examination to put the seals on the property of Clisorius and consorts during his travels in Switzerland. This done is not our concern, and we only cite it to clarify what follows.

[p.28] We consider in comparing the instruments between the parties four very distinct objects. 1st. An optical box resting on a table. 2nd. A wooden structure formed of two bars on which the table slides. 3rd. A tube furnished with a glass lens mounted in a partition, furnished behind with some quinquets to light opaque objects. 4th. A magic lantern serving for the transparent bodies.

As well as these instruments there are still two objects to consider. 1st. A lamp in the hall of the audiences, 2nd. A fabric, rising and lowering in front of a frame where a transparent sheet is gummed or pasted on which is painted the object offered for the curiosity of the audiences. We begin with these.

The lamp. The lamp of Clisorius appears to us with some differences in construction to be on the same principal as that of Robertson. But both to our eyes are absolutely similar to those which have been seen in Paris for several years with the experiment of inflammable air of the Dutchman Sieur Diller, and which suddenly illuminates or plunges the audience into darkness at these experiments.

The Transparent Fabric. The fabric and the transparency of that of Clisorius does not appear to be the same as that of Robertson, there is a slight difference between the distance of the two, [p.29] if the transparency is gum or glue, if one of the fabrics is painted in one manner and the other with the other, this seems of little importance to ascertain. We pass on to the strictly defined instruments.

Box and supporting table. The optical box of Clisorius and the table which supports it, appear to us to have much of an analogy with that of Robertson. There are some differences. The box of Clisorius has a chimney on top which exceeds the height of the

box. That of Robert has not. The first has a door at the back. The second has an opening on the side where on our first visit was a large door retained by a simple nail, and on our second visit a curtain.

The box of Clisorius and the groove which advances and retires the glass lens executes its movement without any noise which could be heard by the audiences. The box and the groove of Robert makes a noise which can be distinctly heard, as certified in the legal statement. The first is blackened with smoke inside because of the quinquets; that of Robertson is not. Added to which it has not the lateral rack, that which is drawn in the patent has one. We have concluded that Clisorius has not been able to copy a brand new box and subsequent to that it is his which that of Robert would seem to be the likely imitation. To us in conclusion again, the box of Robertson has never served for the performances made before, as we have said to himself in the presence of the parties and of the defendants, at the time of the verification of the methods.

[p.30] **Structure of wood.** The structure of wood on which the box of Clisorius slides, appears to us nearly the same as that of Robert. That of his being longer than the first and has not the upper crossbars, this seems of very little importance. Clisorius pretends that this structure does not belong, to him, and that he operates without its assistance and puts the rollers on the floor. This is true; but it operates in a more imperfect way and with a swaying caused by the unevenness of the floor, and at the same time is not able to arrive further than two thirds of a metre from the screen because of the pointed feet fixed in the floor.

Tube set in partition. The tube mounted in the partition which separates the second room from the third is almost the same in the establishment of Clisorius as that in the establishment of Robert. The difference consists 1st. In the greater or smaller projection. 2nd. In the disposition or the number of quinquets behind. 3rd. In that there is a glass lens in that of Robert, and not in that of Clisorius, and this has been attributed to the fact that he never uses it. We did not insist on this tube because it is known to all scientists under the name of Megascopie, and that it serves to make an opaque body appear on the transparent screen in a large dimension.

[p.32] **The magic lantern...** This is the proper instrument which serves Clisorius and Robertson for the transparent bodies and for nearly all the performances of Phantasmagorie and Phantasmagorastie. It is enough for the operation of the approach and retreat of the magic lantern on the screen and to lengthen in the first case and reduce in the second, the tube in front of the box. It has been impossible for us to compare the two magic lanterns of Clisorius and Robert, who has not wished to allow Clisorius to make use of it, because he does not believe that he should permit the introduction of an apparatus which was not under the seals, and consequently has not made any use of his. We add in finishing that it seems to us that for the operators of the Phantasmagorie and the Phantasmagorastie, three rooms are needed one behind the other, and that their disposition and use were the same in the two spectacles. Such is the opinion that we, Richer and Jamin carry with common accord on the instruments and methods verified by us, at the establishment of Clisorius and consorts, that of Robert called Robertson. On the occasion of which we have signed the present act between us, the said days and year as below.

P.N. Jamin, J.F. Richer

Registered in Paris the seventeenth thermidor year eight [5th August 1800], folio 150.

[Extract of pages 482–91 from the book *Le Grand Art de lumière et de l'ombre* by Laurent Mannoni, Nathan, Paris 1994. Translated from the French by Mike Bartley. See also book review, p.15.]