

### Photography and Silhouettes

Sir, - my new suggestion for the commercial development of photography is appropriate to your columns. I therefore ask you to let me address your readers on the subject of black silhouettes. They were very familiar to those who lived in the pre-photographic period. They were quickly cut out of paper by a deft hand with a small keen pair of scissors, and at least one of the many operators in this way ranked as an artist capable of making excellent likenesses. The paper was black on one side, and the silhouette that had been cut out was pasted then and there, with the black side upwards, upon a white card, and framed. A perfectly durable, and often a good likeness was thereby produced in a very short time. This art was superseded by photography, and is now temporarily extinct; but I want to show that it might with great facility - and, I think, with some profit in a humble way - be advantageously re-introduced by the help of the very agency that extinguished it.

I will explain what I myself did, beginning, as one always does, in the wrong way first, and afterwards getting right. I wanted, for some experimental purposes of my own, to obtain a large number of silhouettes; in fact, I wanted photographs of such cleanly-cut profiles as most persons have had occasion to see, of those who stand in a long dark passage between themselves and an only window at the end of it. I therefore arranged a makeshift dark tunnel. At one end was the camera; in front of the other end was a white sheet inclined to the light, and in the tunnel was the sitter for the time. As viewed in the camera, the appearance was that of a field of brilliant white, out of which was sharply cut so much as corresponded to the silhouette of the sitter's face. A rapid exposure sufficed, and I thereby got a white silhouette upon a black ground, which might be used as a negative to produce black silhouettes on a white ground. They served my own particular purpose perfectly, but they had not the clean and sharply-contrasted effect of the old silhouettes; so I cut some of them out of the paper and blackened them, and pasted them on cards. If I had blackened them with aniline ink, I could have produced popyrographed copies; or if I had greased them, and pressed them on stone or on zinc, the lithographer could have worked off copies by the hundred.

My suggestion lies in this last direction. It is, that the photographer, without taking any trouble to construct a tunnel as I did, should photograph on paper the profile of the sitter, either in strong light against a dark background, or *vice versa*; to develop sufficiently to see the image clearly, and then to wash for a second, but not to fix, and rapidly to dry it in the dark; next in full, but somewhat non-actinic light, to quickly cut out the silhouette before the image has time to fade; lastly, to (a) blacken the silhouette, dry and mount it; or (b) grease it, press it on a small lithographic surface, and thence to take as many prints as are desired. The whole of the latter process need occupy very few minutes, and the sitter could walk away in possession of his or her likenesses.

Now the merits of this plan are; that no artistic, and little photographic skill is required; there is no need for a careful adjustment of exposure of lights, and of position, or of accessories; there is no necessity for careful development. The carrying out of the process requires no skill except so far as the cutting out is concerned, which any neat-handed person can soon learn to do quickly and well. The arrangements for rapid drying, and for the various printing operations, might be of the humblest description, and yet a really useful and pleasing likeness might be turned out, far superior in value to the commoner kind of photographs, and to not a few of the more costly ones. The rapidity and cheapness with which lithographed

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copies could be supplied would be incomparably superior to anything that photography can effect. The cost of outfit for experimentalising, if a lithographer can be induced to help in the first instance, does not exceed that of a pair of sharp lace-cutting scissors; and it would, I think, be well worth the while of an enterprising photographer who is slack of work to attempt to establish and supply a demand for prettily-mounted silhouettes.

Francis Galton.

Photographic News, July 23, 1887

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Silhouette [image]

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her daughters. This is most noticeable where their ages and bodily shapes differ greatly, as when the daughters are partly children and partly slim girls, and the mother is not slim at all.

Permit me to take this opportunity of disclaiming a misprint in the very first word of my letter the week before last. It was printed "My"; it should have been "Any." The effect of the "My" is to give a tone of presumption to what I wished to say, quite foreign to my real intention.

Francis Galton

photographs and my suggestions first directed his attention and that of the brothers Henry to the application of photography to the work of star-charting, which had for many years been carried on at Paris by the older methods of astronomy.

Common was amongst the first to take up the work in England, and here on the screen is one of his photographs with a 4-inch lens cut-out in December 1853. But being engaged in other researches, Common made no attempt to commence a systematic survey of the heavens.

James Roberts, of Liverpool, was also early at work in the same field, and after preliminary experiments he acquired a powerful telescope, with which he began a systematic survey of the northern heavens.

It required some time to find the necessary means and apparatus to begin the realization of my ideas at the Cape, but at last the work was started in the beginning of 1855 on the following definite plan, viz., to complete the cartography of the heavens from 20° south of the Equator to the South Pole, and so as certainly to include all stars to the 9th magnitude.

(To be continued.)

### Patent Intelligence.

#### Applications for Letters Patent.

9159. JOHANN BARTON and HERNANN KUHN, 46, Lincoln's Inn Fields, for "Improved process for producing grained relief and intaglio clichés from photographs."—28th June, 1887.

9220. JAMES ARTHUR RICHARDS, 127, Long Street, Sparbrook, Birmingham, for "An improved adjustable stand for holding glasses to exhibit photos, cards of every description, and all articles of like nature."—27th June, 1887.

9341. ALFRED PUGHREY, 128, Colmore Row, Birmingham, for "Improvements in combined changing boxes and dark slides for photographic purposes, and in portable dark chambers for use therewith."—1st July, 1887.

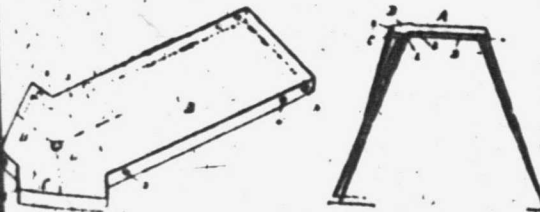
#### Official Abstract of Accepted Complete Specifications.

EDWARDS, 11,231, 1886. "Sensitized plates, films, &c." Machine for setting photographic plates; adjustable guides for tool and plate; weighted tool holder.

GARDNER and MINTON, 7085, 1887. "Artificial light." Powdered magnesium mixed with chlorate, nitrate, &c., and prismatic of potash, phosphorus, &c.

#### Patents Granted in America.

264,628. THOMAS H. BLAIR, Boston, Mass., "Tripod-top for photographic camera."—Filed January 22nd, 1887. Serial No. 225,166. (No model.)



Claim.—1. In a tripod, the combination with the tripod legs removably attached to the tripod-top, of a tripod-top formed with two short arms C D, and a long arm B, the rear tripod leg co-operating with the latter, being adjustable toward or away from the central bolt-hole a, substantially as and for the purposes herein stated.

2. The combination with a tripod-top to which are removably secured tripod legs, of a leg adjustable toward or away from the bolt which secures the camera-box, substantially as described.

3. A tripod-top A, formed of the arms B, C, D, provided with the bolt-hole a, and laterally placed at 1 1, 2 2, 3 3, 4 4, by which to secure the legs upon which it is mounted, as set forth.

### Correspondence.

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FRANCIS GALTOK.

#### MAYALL'S PATENT.

SIR,—In the NEWS of July 1st, I see that Mr. Walens signs himself as "Abridger of 'Photographic' and other Specifications of Patents to the Hon. the Board of Trade." Doubtless Mr. Walens has abridged specifications relating to photography for the Patent Office, but it is due to the Abridger of the last volume of "Abridgments of Specifications relating to Photography," published in 1865 by the Patent Office, to state that Mr. Walens had no connection whatever with that volume.—I am, yours, &c.,

CHAPMAN JONES.

### Proceedings of Societies.

#### LONDON AND PROVINCIAL PHOTOGRAPHIC ASSOCIATION.

A MEETING was held on the 29th ult., A. MACKIE in the chair. The Hon. SECRETARY proposed the adjournment of the business of the ANNUAL MEETING for four weeks, when he hoped several members who had gone to the Convention would have returned. This course was adopted, and technical matters were considered. The cause and prevention of iridescent stains at the margin of plates was discussed.

W. E. DUNNEGAN said it would not occur if the plates were packed closely and hermetically sealed. The marks could be removed by rubbing gently with water.

The CHAIRMAN used a pad of cloth moistened with turp., and in a batch process to the evil he soaked the plates a couple of minutes in ammonia and bromide solution, afterwards adding pyrogallol to perform development. This plan he had never known to fail.

Some remarks upon fixing paper negatives followed. The proportion of sodic hyposulphite to water which was recommended ranged from eight ounces to one pound of the salt to each pint of water; clearing in alum before fixing was said to prevent an effective action of the latter process in the case of certain gelatines.

Removal of paper negatives translucent was then talked about; vasoline and other paraffins being favoured by various speakers.

Attention was directed to an article in the *Photographic Times* (New York), signed by H. P. Robinson, wherein it set forth that the writer had heard good accounts, from different quarters, of a lens coming into great use in the States, named "The Wale." The question was asked whether anyone had seen or heard anything of the capabilities of this lens.

W. H. FRENCH thought it was made in Paris.

W. E. DUNNEGAN supposed the lens named by Mr. Robinson to be an imitation of Stieffell's Aplanat, and similar to those manufactured in Paris, and sold under different names in this country.

W. H. ASHMAN remarked that the Seovill Company were agents in New York for the Wale lens.

R. S. KING said the best Jubilee yacht race views he had seen were taken by Captain Clark, who used a 16-inch focus lens and 16 by 6 plates.

This led to a discussion, in which a focus equal to twice the length of the plate was preferred for instantaneous work.

The Hon. SECRETARY drew attention to a newspaper paragraph relating erroneously to *Photographic Society*. He said they regarded reports of meetings purely as advertisements.

W. E. DUNNEGAN: If they would stick to that it would not matter, but experience shows it is not the fact.

Mackie's process and the Abridger's report thereon was severely criticised. That also and other speculative transactions having some connection with photography were likewise referred to, and it was suggested that photographic societies

should take joint action whenever necessary to prevent misrepresentation.

#### LIVERPOOL AMATEUR PHOTOGRAPHIC ASSOCIATION.

The monthly meeting was held on the 29th ult., at the Royal Institution, the President, GEORGE H. BUTTER, in the chair.

Yero Driffield was elected a member.

The SECRETARY distributed the circulars of the exhibition of the Royal Photographic Society of Ireland; he also read a letter from the Secretary of the Royal Meteorological Society, asking for photographs of lightning flashes, and calling the attention of amateur photographers generally to the subject.

R. CROWE remarked that he believed he had taken the first negative in existence of a lightning flash, and would be pleased to let the Meteorological Society see it. He recommended from his experience, not a rapid rectilinear with full aperture, as advised by the Secretary of the Meteorological Society, but a single lens with aperture not exceeding  $f_{11}$ , on the ground that the lightning flash is quite actinic enough to impress itself with the smaller aperture, whereas with the large aperture the plate would be generally fogged by the amount of diffused light present whilst waiting for flashes to occur.

J. RUTTEN exhibited, on behalf of Messrs. Lange and Meyer, some fine prints in platinum, also three prints, for comparison, of same negative, one platinum and two Obernetter's paper, one of which had been squeezed on glass, the other on ground glass, so as to compare the effects of enamelled and matt surfaces. Mr. Rutten also exhibited and explained a Götts half-plate camera and Morgan and Kidd's roller slide with Rogers' indicator and attachment for employing Eastman rollers.

Dr. KENTON exhibited a number of very fine 12 x 10 enlargements on Eastman gelatine-bromide paper from quarter-plate and Eastman stripping films, some of which were taken on the Rossett excursion.

W. A. WATTS read a paper entitled "Notes of a Visit to the Autotype Works."

Some discussion arose about the difficulty of estimating exposure in carbon printing, some members thinking the reader of the paper had not attached sufficient importance to the difficulty.

W. H. KINSEY remarked that with a little practice the difficulty disappeared altogether.

Dr. KENTON read report of the Rossett excursion, from which it appeared that eight members took part, and that seventy plates were exposed.

Dr. Kenyon and R. J. Sayce exhibited some results.

A. W. BURN reported on the Bolton Old Halls excursion, visiting Turton Tower, the Hall in the Woods, and Smithth. Five members were present, the day being lovely, and from fifty to sixty negatives were obtained.

Mr. BUTTER reported that the Beeton and Carden Hall excursion took place on June 26th, in charming weather, five members and two friends taking part in the excursion. It was found at the end of the day that fifty-nine exposures had been made, both plates and paper being used, the former being Eddard, Roush's, Thomas's, Edwards', and Derwent, whilst the paper was Eastman's ordinary and stripping films.

The adjourned discussion on "Paper versus Glass" was then opened by R. J. SAYCE, who claimed for paper films the advantage on several grounds. He said he had worked on glass many years, but had recently adopted paper, and was quite satisfied with the results, in proof of which he showed a number of prints from negatives both on glass and paper, in many cases of the same subject, and in no case was there any inferiority on the side of paper, while in some it was distinctly superior. He claimed for paper the advantage—1st, In weight. 2nd, Facility for changing, and therefore for securing a considerable number of negatives in an excursion—the only difficulty was the number of routine operations to be performed, but that could be overcome by systematic arrangement; he employed, himself, a notebook containing spaces for initials when wound off. 3rd, Development: he found great latitude, more so than glass; there was some liability to spots, which were quite avoided by the use of plenty of water before development. 4th, Rapidity greater than glass. 5th, Freedom from gelation, in illustration of which he showed two prints, one from paper, the other from glass, of the interior of Grosvenor Church, in which the paper negative was quite free from halation.

R. CROWE, on the side of glass, stated that he admitted for paper the one great merit of portability, but with regard to

centre or axis *a*, around which it is caused to revolve, in combination with the rollers *E F*, arranged to carry the sensitive paper *B*, which is carried over the rollers *C D* between the rollers *G*; the rollers *C D* being caused to revolve with the instrument *A*, so that a fresh surface of sensitive film shall be brought continuously within the focus of the lens as the instrument *A* revolves, substantially as and for the purpose specified.

6. A photographic instrument *A*, pivoted on its optical centre or axis *a*, in combination with sensitive film located within the focus of its lens on a circle struck from the optical centre or pivot of the instrument, substantially as and for the purpose specified.

7. A photographic instrument *A*, pivoted on its optical centre or axis *a*, a sensitive film located within the focus of its lens on a circle struck from the optical centre or pivot of the instrument, in combination with a narrow passage way located between the lens and its focus, and caused to revolve with the instrument, substantially for the purpose hereinbefore explained.

16779. JOHN URIB, Senior, and JOHN URIB, Junior, both of 83, Jamaica Street, Glasgow, Lanarkshire, Photographic Artists, for "Improvements in photographic printing machines."—Dated August 23rd, 1886.  
The claim is for details of exposing machines of the Fontayne type.

#### Patents Granted in America.

366,517. LUDWIG LENDRY, New York, N.Y., assignor, by mesne assignments, to Josephine Lester and Nina Lendry, both of same place. "Process of producing designs on glass plates."—Filed September 3, 1886. Serial No. 212,509. (No model.)



Claim.—1. The herein-described process of producing designs on glass plates, consisting of providing a glass plate with a coating consisting principally of Egyptian asphalt, colophony, coal-tar, bicarbonate of potassium, caoutchouc, and coherite, and then placing a pattern of the design to be produced on the said plate, after which the plate and its pattern are exposed to the action of light, and the pattern is removed, and the plate is washed with oil, substantially as described.

2. A new article of manufacture, consisting of a glass plate having a permanent coating consisting principally of Egyptian asphalt, colophony, coal-tar, bicarbonate of potassium, caoutchouc, coherite, and gum-arabic, and designs printed on the said glass plates with the aid of light and patterns, substantially as described.

3. The herein-described composition of matter used for producing designs on glass plates, consisting of Egyptian asphalt, coal-tar, bicarbonate of potassium, caoutchouc, gum-arabic, colophony, coherite, and turpentine or benzine, in the proportions specified.

### Correspondence.

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FRANCIS GALTON.

DEAR SIR,—F. Galton's letter reminded of my own attempts about two years ago, one of which I enclose. It may be considered under-printed, also over-exposed. The



few I did excite but little attention. As photos these is but little work in them, and they could be supplied cheaply. I think F. G.'s plan of cutting out not an advantage.—Yours truly,  
A. H. CAMB.  
Cornhill, Ipswich, July 14.

### Proceedings of Societies.

#### PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN.

A SPECIAL general meeting was held on Tuesday, the 19th inst. in the Gallery, 54, Pall Mall East, to consider certain alterations and additions to the existing laws of the Society. The club was occupied by James Gleichen, F.R.S., president.

The CHAIRMAN, in opening the proceedings, explained the object of the meeting, and the importance of the suggested alterations. The Council had been a long time in discussing the form of the new rules, hence the reason for holding the special meeting.