

OPUNTIA

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ISSN 1183-2703

OPUNTIA is published by Dale Speirs, Box 6830, Calgary, Alberta, Canada T2P 2E7. Available for \$3 cash for a one-time sample copy, zine trade, or letter of comment on the previous issue. Whole-numbered issues are sercon, .1 issues are reviewzines, .2 issues are indexes, and .5 issues are perzines.

ART CREDIT: The cover depicts Opuntia arbuscula by an unknown artist from the book THE CACTACEAE by N.L. Britton and J.N. Rose.

DON'T FORGET the World Wide Party #5 this June 21st, at 21h00 your local time. At that time, raise a glass and toast your Papernet friends around the world, whether they be SF fans, mail artists, or zine publishers. The idea is to get a wave of celebrations circling the planet. Have a party, do a one-shot zine (I'd like a copy), or celebrate in some other manner. Write me an account of how you celebrated.

The founder of the World Wide Party is Benoit Girard, Québec, with a strong assist from Franz Miklis of Austria. The WWP was originally for SF fans but I see no reason why mail artists, zinesters, and others in the Papernet can't join in on the fun.

At 21h00 on June 21st, face east and salute those who have already celebrated WWP #5. Then face south and north and toast those who are celebrating even as you are. And finally, turn west and salute those who begin their celebration in a later time zone.

[Editor's remarks in square brackets]

FROM: Robert Lichtman
Box 30
Glen Ellen, California 95442

1997-12-11

You explain to your readership that "The Usual" means a zine is available "for \$2 or \$3 to cover postage for a trial copy, trade for your zine, or contribution such as art, an essay, fiction, poetry, or letter of comment". I would add "by editorial whim", which I do in [my zine] TRAP DOOR's colophon, leaving me the room I need to decline to engage in The Usual. That is, I don't automatically want to receive every fanzine out there, and I don't automatically conclude that all unsolicited contributions submitted for prospective publication (but rejected) means the sender gets a copy of my zine. I don't feel obligated to have to deal with any of it, a classic example being the badly handwritten note full of misspellings from someone I've never heard of asking for a free copy and saying that if they like it they'll write a letter of comment. I've had a few dozen of these over the years and they always hit the trash immediately unless they've enclosed a stamp, in which case I might send them a copy of #10 (an issue of which, due to a printing mix-up, I still have many extras) and a short note pointing out my cover price. I never hear back from them.

FROM: R. Graeme Cameron
#110 - 1855 West 2nd Avenue
Vancouver, British Columbia V6J 1J1

1998-1-26

The Canadian Unity Fan Fund is alive and well. You'll note that I've done three things [to the rules in my capacity as CUFF Administrator]: 1) narrowed the nominee focus to fanzine fandom, 2) kept the aperture wide open for nominator eligibility, that is, fanzine activity and/or club activity and/or concon activity, 3) opened up the definition of fanzine activity to include as many potential nominees as possible. Nominations close March 31, 1998. Election ballots will then be distributed Canada wide. Election deadline will be May 30. The 1998 winner will be announced first week of June.

The 1998 CUFF covers travel to Montréal circa October 2 to 4 to attend Convention 18, meet Aurora-winning author Robert J. Sawyer, meet legendary fan Forrest J. Ackerman, attend the Aurora Awards ceremony, and have your hotel room paid for.

What is CUFF? Established in 1981, CUFF is intended to overcome geographical barriers to a united Canadian fandom by sending a western fanzine fan to an eastern SF convention and, in alternating years, an eastern fanzine fan to a western SF convention. Since 1988 that convention has been whichever con hosts Convention, which is sponsored by the Canadian SF and Fantasy Association, the entity which awards the Auroras.

How do people win CUFF? Normally a candidate is nominated by three nominators from the west and three from the east (the boundary is the Ontario/Manitoba border). If there is more than one nominee, the Fund Administrator (the previous year's winner) conducts an election by mail-in vote.

Why is this year's race Canada-wide? Normally when the target convention is in the east, the nominees must come from the west. But because Convention is being held in the east two years in a row, I decided to open up the race to any eligible fan in Canada. A heck of a deal if you live in Victoria. Not so hot if you live in Montréal. (What is CUFF going to do? Cover your bus ticket? Your cab fare? Your subway token? Should the winning candidate be from Montréal or vicinity, CUFF will pay for items not normally covered, such as meals. Details to be negotiated with the winner.)

How do I get to be a nominee? You are eligible if you are a Canadian citizen and: You are a legendary fanzine SMOF, or: You are a long-time well-known fan whose fan-ish resume includes extensive fanzine activity, or: You are an SF fan whose fannish resume includes fanzine activity conducted in the last five years. Fanzine activity is defined as writing, editing, or publishing fanzines, and/or activity contributing to fanzines such as extensive loccing, contributing regular columns, or creating and providing fan art. Provide information as to your eligibility to me in the form of an election platform of 300 words or less.

How do I get to be a nominator? You are eligible if you are a Canadian citizen, and you are an active SF fan who has engaged in one or more of the following activities in the last five years: SF fanzine activity, SF club activity (as in being a member of the executive), or SF convention-running activity (as in serving on concon).

If elected, you must agree to go to Convention 18, pick the cheapest possible Economy airfare, pick the cheapest possible hotel room rate, participate in at least three hours of programming, circulate freely at the con and if possible attend any local SF club meetings or events. After the con, you must write a trip report and become the CUFF Administrator for 1999.

FROM: Harry Warner Jr
423 Summit Avenue
Hagerstown, Maryland 21740

1998-1-2

Jennifer Jessop's history of Star Trekking in Calgary is a splendid and undoubtedly very hard-compile essay of importance to the history of fandom. The only problem is it demonstrates the enormity of the task that will await anyone who tries to write a general history of fandom in the 1980s and 1990s. The Star Trek phenomenon must form a part of such a future historical task. But the summary of some of the things that happened among Trekkers in just one Canadian province is so long that it's obvious that any sort of thorough compilation of ST fandom in all of North America would run to several hundred pages. It would be much harder to research after some years have passed and it becomes harder to find someone with a good memory for each geographical area.

FROM: Carolyn Clowes
5911 West Pay Drive NW
Depauw, Indiana 47115

1997-12-18

Jennifer Jessop's history of clubs in Calgary reminds me how deep the feeling runs for Star Trek. It's the most knowledgeable, passionate fandom I've ever encountered. I knew that going in, and I'm a stickler for accuracy. Of the hundreds of letters I received and answered on my book, there were still a few tirades because I'd ignored some pet theory I should have paid tribute. Perhaps that explains why there's so much disagreement and infighting in the clubs over things that don't seem all that important compared to having a good time. The rules and hierarchy of Trek organizations continue to amaze me, as does fannish acceptance of them. But nitpicking aside, the kindness and generosity of Trek readers has no parallel.

FROM: Chester Cuthbert
Winnipeg, Manitoba

1997-12-18

Although I have no interest in Star Trek fandom, that coverage is important historically. It deserves being recorded while accurate information is available.

FROM: Scott Crow
Box 445
Clements, California 95227

1997-12-15

Re: Brian Davis' piece on KingCon '97: Why do SF groups continue to press on with conventions? So many events and clubs seem wracked by infighting, petty politics, and other such nonsense. It seems as if every group has some sort of flame-out. As someone outside fandom, it seems a little odd at times to me. I don't mean to be critical.

FROM: Lloyd Penney
1706 - 24 Eva Road
Etobicoke, Ontario M9C 2B2

1997-12-26

The story of Vulcan, Alberta, has been an interesting one, perhaps if only for the desperate attempt to cash in on the Trek phenomenon and its name. Trek fandom is dying away with the poor quality of the current, and the Internet providing the average Trekfan with thousands of sources of "information" on Trek. The latter is killing off Trekcons, Trek clubs, and even long-time service organizations like the Star Trek Welcommittee, which has just shut down after 26 years of operations.

I ALSO HEARD FROM: Bill Bridget

MORE ABOUT HECTOGRAPHS

by Dale Speirs

Hectography is a copying process by which an inked master is laid on a slab of gelatin and a mirror image formed on the slab. Blank sheets of paper subsequently laid on the slab pick up the ink and thus make a copy. The hectograph is so named because it will make 100 copies with a good operator. Originally the hectograph was a do-it-yourself affair, and you had to pour your own gelatin, but in later years one could buy ready-made gelatin sheets.

The hectograph appears to have originated in the 1860s or early 1870s, possibly in German Europe. There are precursors however, for as with most inventions, many people were working on the idea at the time. One account from 1852 mentions the following, which might have been a hectograph or was instead tracing paper (Anonymous 1852): "Very pure gelatine is made from the waste fragments of skin, bone, tendon, ligature, and gelatinous tissue of the animals slaughtered in the Parisian abattoirs; and thin sheets of this gelatine are ... made into very thin white and transparent sheets of papier glacé for copying drawings ..."

The word is also seen spelled as hektograph, and I am of the belief that this was a brand name used by the Heyer Corporation, since all the other users spelled it with a c. You will notice this in the advertisements that accompany this article.

Hectography was popular for a century since it filled the gap between printing with type or a stencil and using carbon paper.

HEYER *Quality* INK REMOVER



Leaves Hands Clean — Soft — Smooth.

A creamy, pleasantly scented formula that quickly dissolves and removes Hektograph, Stamp Pad, Check Protector, Typewriter Ribbon and other ink stains from hands. Simple, effective and absolutely harmless.

Heyer
ALWAYS



Quality
SATISFIES

THE HEYER CORPORATION

Quality Duplicators and Supplies Since 1903

901-11 WEST JACKSON BLVD.,

CHICAGO, ILL.

Printing presses have never been practical for short-run copying such as business memos or church bulletins. Inventors were long tinkering with copying machines or processes, such as James Watt of steam engine fame (Anonymous 1887). Hectographs were in common use by at least 1880 and probably earlier. Charles Dickens wrote about hectographs in familiar terms (Dickens 1880). Alfred Harmsworth, later Lord Northcliffe, who was to eventually own THE TIMES of London, started off with a schoolboy zine in 1872. It was printed initially by means of a "jelly-graph" for the reproduction of manuscripts in violet ink" (Wells 1934).

Various rotary stencil machines were developed by the early 1900s, but the hectograph was still used. It was common in poorer parishes for church bulletins, and was the only practical method for field work such as missionaries in tropical countries. Artists and the avant-garde used hectographs for pubbing their ish. In April 1970, a set of hectographed journals from 1898-99 were auctioned by Sothebys for £5000 (Graham 1973).

Hectographs were popular with zine publishers on a very tight budget back in the 1930s and 1940s. Stamp collectors also used the hectograph as a local post label producer (Pross 1997), and in good hands would produce nice results. Eventually hectographs were superseded by spirit duplicators and mimeographs, and all of them by the photocopier circa 1970s. The hectograph process is still used for business forms, and patents are still being filed (Henry Welch, personal communication, who sent the examples illustrated elsewhere in this article).

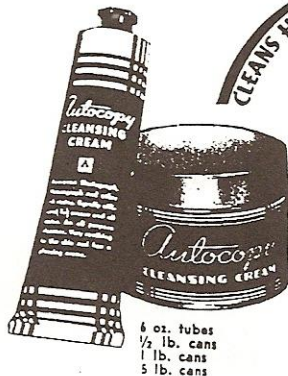
The ads illustrating this article come from various issues of GEYER'S OFFICE EQUIPMENT DIGEST published in the WW2 era.

Autocopy CLEANSING CREAM



CLEANS HANDS INSTANTLY!

Removes Hectograph, Mimeo and other Duplicating Ink stains, oil, grease, etc.



6 oz. tubes
1/2 lb. cans
1 lb. cans
5 lb. cans

TRIAL ORDER—Send your order for 12 tubes today.


Quick, effective, pleasant—enjoys enthusiastic approval of copy machine operators. They like its thorough, yet gentle action, its pleasant scent and the way it keeps hands soft and smooth without disturbing nail polish. It has been tested, approved and adopted for use by many large firms including Bethlehem Steel, Timken, R.C.A., Inland Steel, Crane Co. and Ryerson.

Autocopy, Inc.

The Heyer ads shown here are from the April 1941 issue (right) and March 1942 (below). The Writo ad is December 1940.

HEYER *Quality*

HEKTOGRAPHS



ORIGINAL MAKES
50 TO 100 COPIES

5 SIZES

Always Satisfy!

WRITE FOR PRICES

THE HEYER CORPORATION • CHICAGO

HEYER *Quality*

HEKTOGRAPH REFILL

RENEWES ANY PAN-TYPE
GELATIN DUPLICATOR

Always Satisfies!



WRITE FOR PRICES

THE HEYER CORPORATION • CHICAGO

"WRITO"... A New Discovery!

... In Hectograph Duplicating Compounds
What WRITO Means To Users:



LONGER SHELF LIFE... Guaranteed indefinitely against deterioration. Will not crack, dry or spoil! IMPROVED CUSTOMER SATISFACTION... twice as many copies—immediate re-use without waiting—takes any kind of paper without tearing. EASIER TO USE... crystal clear and chemically pure; entirely odorless!

Ask Your Dealer or Write

*Pans and Refills...
Sizes for all needs.*

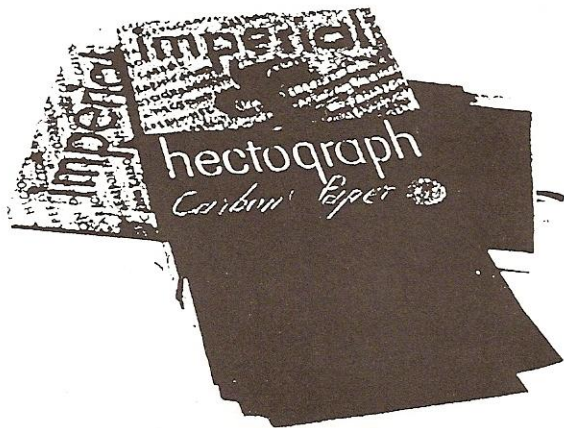
*A Complete Line of
Hectograph Supplies.*

ROSS LABORATORIES, INC.
4021 N. Hermitage Ave. Chicago



LEFT:

HECTOGRAPH HAND CREAM. Another addition to the Columbia line of hectograph supplies is an improved ink and stain remover cream, about one-third more effective than its predecessor. Like the original Rainbow hand cream, the new product is available in 6-oz. tubes and 1-lb. jars. The new cream is effective in removing stains from hectograph, Mimeograph, duplicator and typewriter ink from the operator's hands. In addition it is beneficial, softening and soothing to winter-chapped hands. From Columbia Ribbon & Carbon Mfg. Co., Inc., Glen Cove, N. Y.



LEFT:

HECTOGRAPH CARBON. A new hectograph carbon, claimed to produce more readable copies than any other hectograph carbon on the market, has been announced by Peerless Key-Imperial Mfg. Co., Newark, N. J. The new Imperial carbon, result of ten months of experimentation in the firm's laboratories, produces beautiful and readable copies, retains its sharpness of write and clarity. Five hundred and more copies from one master may be made. Imperial hectograph is made for both the spirit and the gelatin process, is smartly packaged in a colorful pull-out box.

Hectograph master webs and sheets, and methodInventors: **Brown; Albert E.** (Locust Valley, NY); **Emerson; Robert T.** (Manhasset, NY).Assignee: **Leedall Products Incorporated** (New York, NY).Appl. No.: **880,681**Filed: **Jun. 30, 1986**

Abstract

Hectograph master webs and sheets formulated to provide sharper, more-complete transfer under reduced imaging pressures, and sharper, more-numerous duplicate copies in the *hectograph* duplicating process and resistance to adhesion and coating-transfer under the pressures exerted by a *hectograph* duplicating machine. The receptive surface formed on the master sheet comprises a hard, pressure-adhesive coating consisting by weight essentially of 45 to 65 percent paraffinic wax, 5 to 20 percent hard wax and 15 to 40 percent polybutene polymer having a Staudinger molecular weight of from 10,400 to 12,300 which bonds to the *hectograph* transfer layer under relatively low, localized imaging pressure but which is sufficiently hard to resist adhesion, sticking and pick over to *hectograph* copy sheets during the *hectograph* copying migration of the *hectograph* compos

United States Patent**4,184,003****Knabe, et. al.****Jan. 15, 1980**

Stable *hectograph* compositions, transfer elements and processesInventors: **Knabe; Herbert** (Centereach, NY); **Schlotzhauer; Allan T.** (Glen Cove, NY); **Scott; Michael A.** (London, GB2).Assignee: **Columbia Ribbon & Carbon Mfg. Co., Inc.** (Plainview, NY).Appl. No.: **784,300**Filed: **Apr. 4, 1977**

Hectographic zines are familiar to the older generation of SF fans. Those of us who were in school any time up to about the middle 1960s will remember those purple fuzzy-type exam papers, whether hectograph or its descendent the spirit duplicator. The inks have faded on some zines or documents, but this is not a fault of the basic process. Under good conditions, a hectographed paper can last as well as printing from type. I have school report cards done on a hectograph which are as bright and clear today as they were when they were printed in 1965.

References.

Anonymous (1852) Penny wisdom. HOUSEHOLD WORDS
6:97-101

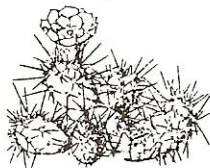
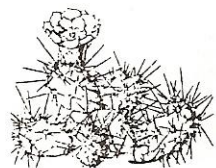
Anonymous (1887) Copying letters. NOTES AND QUERIES
7th series, 3:499 4:117-118

Dickens, C. (1880) Autographic printing. ALL THE
YEAR ROUND 45:160-163

Graham, R. (1973) The hektograph. AMERICAN NOTES AND
QUERIES 11:104-105

Pross, L.F. (1997) The Cattish Post. AMERICAN
PHILATELIST 111:842-845

Wells, H.G. (1934) Experiment in autobiography. Pub.
by Victor Gollancz, London. pp 326-327



The ad shown below is from the 1905-10-28 issue of HARP-ER'S WEEKLY. Even as the hectograph was at the height of its popularity, the end was nigh.

The Mimeograph Way

of doing circular letters
— blank forms
— instructions
— price lists
— orders
means they are

Done To-Day

Write one—by the stenographer
Print the rest—by the office boy

We would like to send you our Booklet
telling how the Mimeograph earns its cost
over and over, and describing the new 1905



Rotary Mimeograph

Drop us a postal

A. B. Dick Company

161-163 W. Jackson Boulevard

Chicago

or 47 Nassau Street, New York

HOW TO USE A POSTAGE STAMP,
OR,
WHY DOES THE NUMBER '12:00' KEEP FLASHING ON MY VCR?
by Dale Speirs

The birth of the postage stamp is generally agreed on as May 6, 1840, when the British Post Office first issued them. (There are claimants from other nations that pre-date the Penny Black, but they are not accepted for various reasons.) Today, stamps are common enough that the idea seems self-evident. It was not always thus. Until the Penny Black was issued by Britain, postage was either paid in cash at time of mailing or collected as postage due from the addressee. 1840 was not just the introduction of the postage stamp. It was also the lowering of postal tariffs so that the average person could afford to send or receive mail. In the old periodicals I have been researching are laments on the system of sending mail unpaid:

"The poor emigrants ... present themselves at the post offices, and on finding that their letters cost three shillings and fourpence, or perhaps five or six shillings, turn away in despair." (ref. 1)

This system was slowly replaced with prepaid letters at pence rates, and was the start of the Papernet. Letters and zines started to circulate far more than they ever did before. The Papernet made a profit for the post office at the new lower rates.

Just how non-evident the use of a postage stamp was can be surmised from the fact that two decades after they were introduced, the British Postmaster-General found it useful to issue a press release on how to work the thing (ref. 2).

"AFFIXING POSTAGE-STAMPS. — The Postmaster-General has issued the following notice: The best mode of

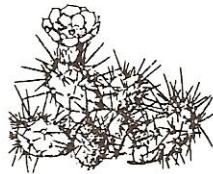
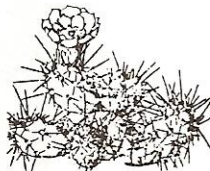
affixing postage-stamps is to wet slightly the corner of the envelope and the gummed side of the stamp, and then gently to press the stamp till it is firmly fixed. The practice of dipping the stamp in water is objectionable, because, unless the stamp is immediately withdrawn and care be taken, by the use of blotting paper or some other absorbant, to remove any excess of moisture, the gum may be washed off or the stamp may be rubbed off the letter."

I don't know of anyone who puts a stamp on the envelope today by licking "slightly the corner of the envelope", but the rest of it is not a subject for tutorials. Time has made the thing a matter of ease and user friendliness. As I read the instructions on how to use a postage stamp properly, I couldn't help but think of all those millions of VCRs with their digital clocks perpetually flashing '12:00'. And trying to configure a computer for the Internet goes without saying.

If it took several decades to get the postage stamp into a reasonably settled mode, one wonders how long it will take to get our modern electronics systems merged into the so-called seamless interface.

References.

- 1) Anonymous (1841-7-10) PENNY MAGAZINE 10:272
- 2) Anonymous (1859-7-16) ILLUSTRATED LONDON NEWS 35:65



In the early days of any technology, there are always many false leads and mistakes, many workable ideas which nevertheless failed against competition, and many goings-on that posterity laughs at but only with the benefit of hindsight. This process is still true today, as a quick glance at computer software will suggest. Today the typewriter is standardized, but a century ago there were some very bizarre machines on the market that looked like pincushions and nothing like the keyboard we now use.

And so from that thought, let us consider the snail telegraph. In the early days of telegraphy, before underwater cables spanned oceans in multitude, and when landlines were not as reliable as they later became, telegraph companies were searching to find a better method of sending messages over great distances. One briefly considered idea was to use snails to send messages.

Snail telegraphy had its origin in the late 1840s. It was based on the idea of animal sympathy. The word "sympathy" had a different meaning back then, and its modern equivalent would be a cross between telepathy and empathy, rather than pity as we understand it now. To quote from John Williams, writing in March 1860 (ref. 1): "It was maintained as a positive fact that the result of juxta-location in some of the lower class of animals, such as snails, and of these that species especially called by the French 'escargot', was a complete sympathy, and a quasi-identity of function and movement. If one protruded its feelers, the other would immediately do the same. This sympathy, moreover, after the two creatures had been kept together for a certain time, would not be affected by separation or removal to any distance, even to the other side of the Atlantic. It would, therefore, only

be requisite to arrange a preconcerted set of signals, and the telegraph would be established. Touch, for instance, the creature's head, thereby causing a movement or some kind of commotion at that spot; that might stand for A. Touch the tail, and let that stand for B, and so on. This being arranged, let any gentleman take one of these escargots to New York, leaving the other with his correspondent at Paris. The result would be a communication with the Paris Bourse, without troubling two great nations to employ their Agamemons and Niagaras, and expending enormous wealth and appliances in laying down Atlantic cables."

The telegraphie escargotique was first publicly demonstrated on August 3, 1850. A distinguished audience of politicians and writers, including Victor Hugo, assembled at 86 Route d'Asnières in Paris, and watched the inventor show it off. There are conflicting reports as to the exact spelling of the inventor's name, either Benoist or Benoit, so the news reports printed below will use the name as given then. The initial report was in LA PRESSE of October 27, 1850, but I have not seen a copy of that and so must rely on the English translations reported at a later date.

The earliest translation I came across was dated September 6, 1851 (ref. 2). Starting off with a disclaimer of the reporter's doubts, the report goes on: "The master of the house led us to a sort of barn, where we found at each end two structures in wood placed on open stands. In the front of each was a wooden wheel moving on its centre. This wheel, about two yards in diameter, presented the most singular appearance. 300 or 400 snails were kept immovable, by means of a sort of paste, in a reservoir in zinc; the open part of the shells was towards the spectator, and some of them protruded their heads. On the wheels were lines of metal, on one of which were the snails, and on the other letters of the alphabet. The reservoirs in zinc in which the snails were placed were lined with cloth and copper, like the

voltaic pile, and all the reservoirs were connected by conducting wires, which were collected on the axis of the wheel. One apparatus was to serve to send a despatch, the other to receive it; we will, to make the demonstrations clearer, call one 'Paris' and the other 'London'. In turning the wheel the letter required was brought to an opening, and designated by a needle. Each time that Paris sent up a letter to the opening, and designated it by the needle, M. Benoist, in the structure called London, wrote it with a pencil on paper, after having discovered it on his own wheel, by, as he said, moving a snail in its reservoir on the letters, which snail made a movement on passing by the letter indicated. This is the mystery, and we know no more of it than you do. We wrote in the box representing Paris the word 'enfer', and it was perfectly reproduced at London. Another person wished to send the word 'tell us' but, either from want of practice or irregularity of the machine, M. Benoist received the letters C T Z Z L J. We ourselves recommenced, with M. Victor Hugo by the side of us, in the inclosure Paris, and we sent B E N O I S T, which was perfectly reproduced in London. Then we sent the word 'Deus', with a mark X between the U and S, and it was perfectly received and reproduced. Such is what we saw: an apparatus of wood, copper, zinc, and snails, sent to a similar apparatus, at a distance of fifteen yards, three words. But was it really the snails which acted? Was it simply the pile formed by the juxtaposition of copper and zinc? Could the same effect be produced in the same manner, at long distances? These questions can only be solved by experience."

So ends that account. Now before moving on to the next report, one must consider if the wheels had been connected so as to provide a telegraphic circuit of the ordinary kind, albeit with snails for ornamentation. Was there an earth ground or actual wires in connection? Or could it have been an unusual early application of wireless telegraphy?

Another translated account of that strange day in 1850 reads as follows (ref. 3): "... an ingenious Frenchman propounded the idea of dispensing with communicating wires altogether, and of transmitting messages to any distance by the utilization of animal magnetism. This was one Jacques Toussaint Benoit, who, in conjunction with a mythical French-American, named Biat-Chrétien, submitted to the wonder lovers of Paris a scheme for telegraphing by means of snails."

"... M. Benoit declared that by experiment he had found that snails, which have been once put in contact, are always in sympathetic communication. When separated, he affirmed, they discharge a species of fluid, of which the earth is the conductor, which unrolls like the thread of the spider or silkworm, and which can be uncoiled and prolonged almost indefinitely into space without breaking. But this thread of 'escargotic fluid', he said, is invisible, and the pulsation along it is as rapid as the electric fluid."

"With such a marvellous fluid it was not necessary to have connecting wires. All that was required was that a wire, at each end of the sympathetic telegraph, should be carried into the earth, and the earth would complete the circuit. All that now remained, therefore, was to construct the apparatus for developing and transmitting the magnetic fluid."

"... The apparatus consists of a square box, in which is a Voltaic pile, of which the metallic plates, instead of being superposed, as in the pile of Volta, are disposed in order, attached in holes formed in a wheel or circular disc that revolves about a steel axis. To these metallic plates, used by Volta, MM. Benoit and Biat have substituted others, in the shape of cups or circular basins, composed of zinc lined with cloth steeped in a solution of sulphate of copper, maintained in place by a blade of copper riveted to the cup. At the bottom of

[continued next page]

each of these bowls is fixed, by aid of a composition, a living snail, whose sympathetic influence may unite and be woven with the galvanic current, when the wheel is set in motion, and, with it, the snails that are adhering to it."

"Alas! poor snails; but they required brethern in misfortune to complete the circuit. Each galvanic basin, we are told, rests on a delicate spring so that it may respond to every 'escargotic commotion'. Such an apparatus obviously required a corresponding apparatus at the point to be communicated with, disposed in the same manner, and having within it snails in sympathy with those in the other apparatus. This was necessary so that the 'escargotic vibration' should pass from one precise point in one of the piles to another precise point in the other complementary pile."

"... MM. Benoit and Biat have fixed letters to the wheels, corresponding the one with the other, and at each sympathetic touch on one, the other is touched. Consequently it is easy by this means, naturally and instantaneously, to communicate ideas at vast distances by the indication of the letters touched by the snails."

"... there were two such machines, one at each end of the room, and each containing 24 alphabetic and sympathetic snails. They looked very unhappy, and tried hard to get away from the unsympathetic solution of sulphate of copper which dribbled upon them. But whenever they put out their horns to creep away, a dribble sent them back quickly to their shells. This was doubtless the escargotic commotion."

"It was rather objected by the spectators that the two machines should be in the same room, but M. Benoit explained that while space was limited in his premises, it was of no account to the snails. They would communicate as freely, and almost as rapidly across the

globe as across the room. Indeed, he professed to be in daily converse with his friend Biat, in America, and intended telegraphing to him after they had themselves tested the machines."

"So the journalist went to one of them to manipulate a message, while M. Benoit went to the other to receive it. The words certainly did seem to be reproduced, with some errors in orthography, but then the inventor was rushing about so much, examining, adjusting, and explaining, that he seemed to be at both machines at the same time. The journalist touched the alphabetical snails at the one end as he spelled the words, and the snails in M. Benoit's machine, after a slight interval, put out their sympathetic horns in response to M. Benoit's sympathetic but not perfectly grammatical fingers."

"The spectators were puzzled but not incredulous, and they waited with anxiety to see an interchange of messages with America. Somehow the snails refused to respond to the adamic-current in the mythical Biat across the ocean, and the scene ended in some confusion. A further test-séance was promised, and arranged for, when the machines were to be placed in different rooms. The day arrived but M. Benoit did not. As for M. Biat-Chrétien, he is supposed to have been a sort of scientific Mrs. Harris."

"Such is the story of the snail telegraph, surely one of the most curious episodes in the history of telegraphy. And there is no doubt that it was for a time firmly believed in by some intelligent men, who had persuaded themselves that the crazy Benoit was an inspired genius. We may laugh at them now, of course, but have we not among ourselves, and in our own time, persons who devoutly believe in the production of spirit-photographs?"

The last paragraph of that account drives home a point to be considered before laughing at those silly people of 150 years ago. Many of our cherished beliefs will likewise be scorned by our great-grandchildren.

[continued next page]

The snail telegraph is forgotten today, not the least because the telegraph itself will soon be gone from living memory. But after its initial appearance, it stayed in public memory for several decades as an item of ridicule. Captain Richard F. Burton, of Arabian fame, passed an insult in his book *EL MEDINAH AND MECCAH* that Americans believed "... in mediums, in snail telegraphs, and spirit-rappings" (ref. 4).

In 1876, a Dr. Carpenter gave a talk in London on the subject of "Mesmerism, Odylism, Table-turning, and Spiritualism, Considered Historically and Scientifically". The newspaper report (ref. 5) provided the gist of his lecture, which is as useful today and as likely to be ignored as it was then.

"Dr. Carpenter said that if a witness testifies to something altogether monstrous and incredible, we do not receive his testimony, because we judge by our common sense, that general appreciation of probability which we gain from ordinary observation, and the ordinary reasoning upon our observation which is always going on in our minds. The well-trained mind will be always making generalizations unconsciously, by the test of which we judge of probability and improbability, possibility and impossibility. Then there is a scientific common sense, and that brings us to the most valuable means of estimating probability, early scientific training. In a very large proportion of those who commit themselves to what Dr. Carpenter believes to be errors on this subject there is the want of that scientific discrimination which comes from good early training."

[Carpenter then tells the story of the snail telegraph, now a quarter-century in the past, and mentions that it was reported in *CHAMBERS' JOURNAL*, a popular general magazine. The audience is reported in laughter at the story.]

"Now everyone could see it was an insult to common sense ... but it was reproduced by his old friend Mr.

Robert Chambers, who was fond of anything of the kind as a thing worth considering. (Laughter.) Did they not judge in that case by the inherent impossibility? And if any number of people should tell them they had seen it, would they believe it? He should not."

But Dr. Carpenter notwithstanding, there are still many who believe today in homeopathy, UFOs, creationism, and other ideas that can be dressed up a bit in pseudo-scientific clothes. All that is required is a bit of plausibility, as with snail telegraphs. Was Benoit's snail telegraph a complete fraud? Or did it inadvertently succeed over the short distance of the room because the machines had an electrical path through the earth and functioned as an ordinary telegraph? Cold fusion is a similar case to the snail telegraph. It is not what it was supposed to be, yet there is some kind of reaction that might lead astray minds that should know better. In the 1960s, polywater was the miracle of the day, which did all the things it was supposed to do but was finally found out as ordinary water contaminated by silica from the glassware used to manufacture it.

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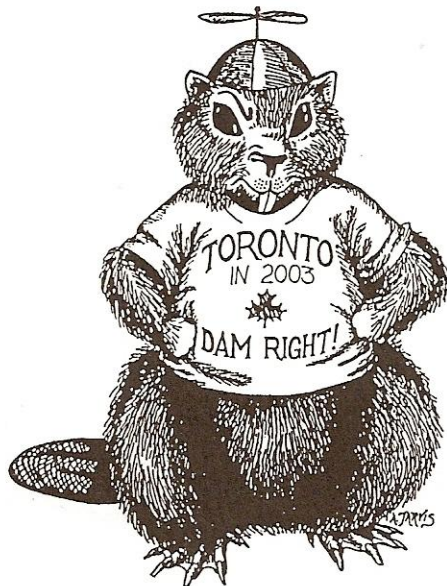
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- 3) Anonymous (1890) Early telegraphy. *ALL THE YEAR ROUND* 66:177-180
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- 5) Anonymous (1876) Dr. Carpenter on spiritualism. *LONDON TIMES*, December 15, page 6

"The time has come", the Neo said,
"To talk of many things:
Of zines and fandom and WorldCon
Of bids and wins
And why Cancun is boiling hot
And whether Torcon 3 has wings."

"But wait a bit", the SMOFer cried,
"Before we win our bid;
For some of us must vote,
And all of us party to win."
"Vote Torcon." said Roscoe.
They thanked him much for that.

"Pre-supporters", the Neo said,
"Is what we chiefly need;
Publicity and volunteers besides
Are very good indeed.
Now, if you're ready to party
We can fulfill the need."

"But no delay", the SMOFer cried,
"Get your money in now.
After all, timeliness would be
A better thing to do."
"The bid is fine", the Neo said,
"Toronto in 2003 for you."



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