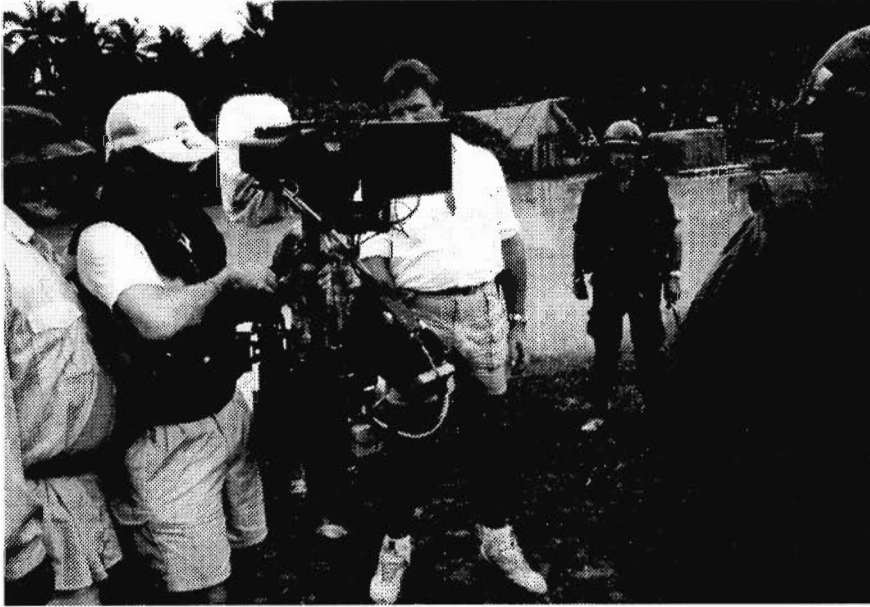


STEADICAM[®] Letter

NEWS FOR OPERATORS AND OWNERS

Volume 1, number 3 Dec. '88



McConkey on Thailand

For three months in the Spring of 1988, Larry McConkey worked on Brian De Palma's new feature, "Casualties of War." The film is coming out in early 1989.

LETTER: Was it any fun?

McCONKEY: Yes. I had never been to Southeast Asia before, and Thailand is now one of my favorite places in the world. I love the people and the country, and that has a lot to do with my impressions of the job itself. It is the only country outside the United States that I have felt truly welcome in as an American, and of course, that made the experience more delightful. But the first few days of work were brutal. The rest of the crew had a week or two to adjust to the climate before shooting, but I had to work the day after I arrived. It was hot, and it was humid.

LETTER: How hot was it?

McCONKEY: The first day it was 120° in the sun, and the humidity made it feel like it was virtually raining all the time. I had a long tracking shot down a dirt street in the Vietnamese village set. Now, I tend to be very careful not to wear myself out during a shoot, and I get as much rest as possible between takes and as much help from the crew as I can, but even so, after four or five takes I was actually thinking in panic, "How can I get out of this place and back on a plane for home?!" Everyone understood what I was going through, because they had gone through it a week earlier. Brian told me to sit down until I was rested. So with the entire cast and crew waiting, I sat for about ten minutes until I recovered. From then on I was very conscious of the importance of staying out of the sun whenever possible, constantly drinking water and the electrolyte solution the nurse was offering, and

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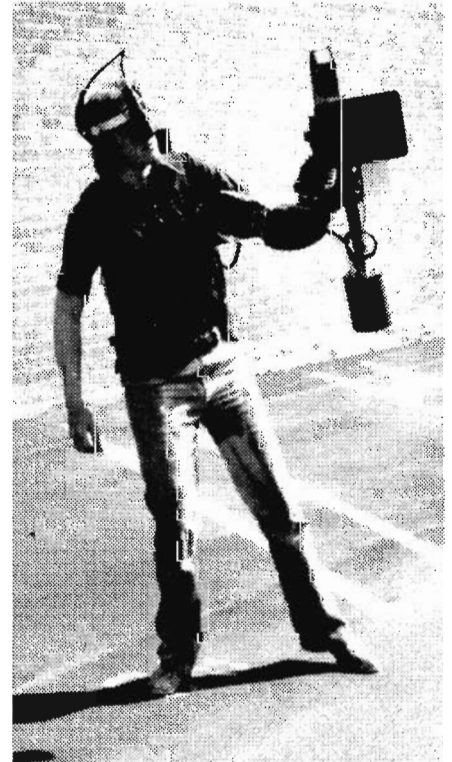
Ancient History

"The Brown Stabilizer"

That's what I wanted to call it. It wasn't just ego (that came later!). I thought it needed a simple, honest, "70's" kind of natural name, a pure name, not a stupid, gimmicky name like "Steadicam." It was Ed DiGiulio's suggestion, which I hated immediately. Of course, as he predicted, the word has now become simply a word, a noble word, meaning exactly what it says, and in fact, I am daily (well, yearly...), grateful that he prevailed and that we didn't call it the bloody Brown Stabilizer!

In any event, I recently unearthed some early pictures, and have been inspired to relate the one-and-only true version of the birth of our noble gadget. So here it is: the truth du jour, supplanting any and all spurious

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1975: The first CP version!

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memoirs, dubious interviews, doubtful brochures, and slick video-magazine segments...

In 1929, Lee (Vacuum Tube) DeForest patented using a vacuum to silence a movie camera in a bell jar. This item popped up 41 years later in my very first patent search and squashed my first "invention," a vacuum-blimp for the Arriflex IIc. With hindsight, I should have persevered, since it would have weighed about five pounds, and might even today be better than lugging a BL-IV around, however...

I rebounded to another problem - how to improve the look of my hand-

rebuilt as a parallelogram mini-crane, and my ACL acquired a fiber-optics viewfinder in order to secretly shoot a commercial for Connecticut Natural Gas.

It almost didn't get finished in time. My basement-type machinist, when asked to drill the last few holes, came out with a line which we still use: "I can't stay up, I have to supervise men tomorrow!" Needless to say, this guy never worked again in the "brown stabilizer" business... We ended up at 3 a.m. in Bridgeport, Connecticut in a vast old railway machine shop, with the owner himself trying to remember how to operate his locomotive lathe in order to make us the last



Bungee cord suspension system for pain aficionados

the operator's right shoulder. By now it employed a Kenyon gyro stabilizer and battery in place of the t-bar and weights, so you can imagine how excessive was its stability, and how impressive was the impact of seeing an operator looming around a corner carrying the Lusitania suspended from "that" muscle, fiber-optic bundle pressed against one eye, head tilted upward in a vain attempt to body-english some tilt into the shot, groaning weakly, vertebrae shifting like tiddly-winks...

It was beginning to sink in that this device might not be what the motion-picture industry was waiting for. I loved the results and knew that I was the only one in the world who could make such shots, yet it was also clear that none but crazed obsessives would endure using this contraption. We were shooting amazing commercials, with clients and crew signing agreements-of-secrecy. I had fabulous demo reels in 16mm and both Panavision and Cinema Products were interested, but both said they wanted to see a demo in 35mm (Oy!)

All the spare dough from my commercial-production company ended up in little machine shops, and did they ever see me coming! For example, in an attempt to make the camera pan and tilt independently, I



"The Pole Rig" appeared in the spring of 1972

held shooting. I had mounted a camera on a long pole rig slung below a helicopter for shooting into the windows of moving Subarus. It was surprisingly stable, except in pan (the axis around the pole). I was intrigued and built a long "t-bar" rig of plumbing pipe, which was stable in all directions as one ran around the countryside. It was clumsy and rolled a lot, but the footage looked surprisingly good. I suppose if I had been satisfied with this gadget (which gets re-invented from time to time in this business, e.g. "shaki-cam" and "pogo cam"), the project would have ultimately fizzled, but I couldn't quite leave it alone. In the spring of 1973 the "pole" as it was still known, was

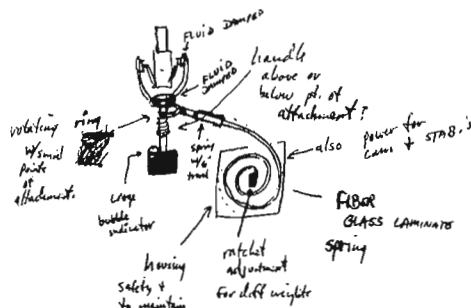
few dinky parts.

It worked, better than the earlier ones, and the camera stayed level as one boomed up and down, but carrying it was a big strain on the old hand. We hired the biggest, strongest cameramen in the land and sent them all home in a pillowcase after a day with the "Pole Rig"! So I built a body support which floated the whole contraption on the end of a nine-foot bunji cord running through yacht pulleys, and which provided my first taste for vanquishing Hooke's law, as to the "rate" of suspension systems.

The contraption was as slick, in this regard, as our present-day arm, but applied all of its massive torque to the what doctors call "that" muscle in

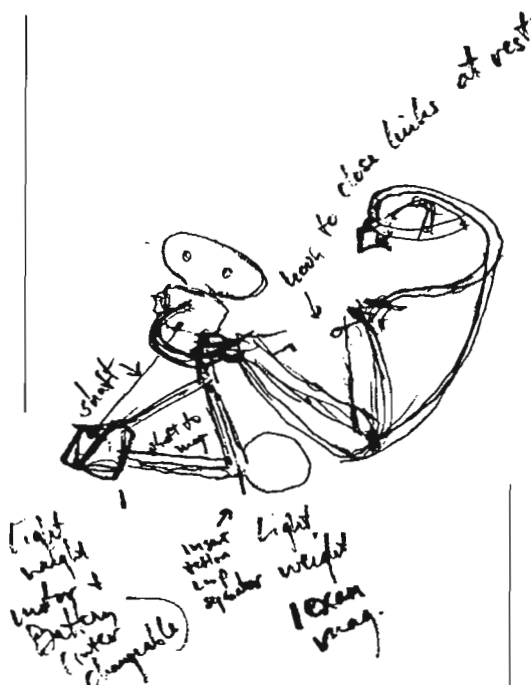
had strayed into the scary world of "grade-14" worm gears, cut and fitted to impossible tolerances, in order to avoid backlash when my web of Berg belts was cranked from the handle. The last of this series of finer and finer worm gears cost five thousand dollars to fit, and was the knock-out punch for the "pole". Despite having a patent application ready to file, I abandoned the whole notion. The principles were sound, but it was too big, too heavy, too complex — a turkey.

I was desperate now to find a commercially viable answer and recover my investment. I have told interviewers that in the spring of 1973 I twice checked into motels for week-long marathons of thinking-with-no-distractions (except frequent room-service), and this much is true, however the story about scaring the maids by running up and down the corridors with borrowed mop handles is exaggerated. Mild amusement was the general reaction. But they did sit around and talk about it; "The boy better watch that trim — it'll precess if he even tries a whip pan!"



Dead end fiberglass spring version

Eventually I got it. The hardest part was giving up features — like the camera's ability to boom from floor to ceiling (I still think about how to get the present Steadicam to go from high to low mode while shooting). The requirements for a successful device were clear - lists I made at the time indicate it needed: "remote reflex viewing, isolated suspension (from vertical, horizontal and angular motions), minimum extra weight, close operation to the body, "float - with human servo-mech damping, 300 degree pan, 100 degree tilt, and zoom to 150mm."



Fall 1973: First sketch with arm suspension

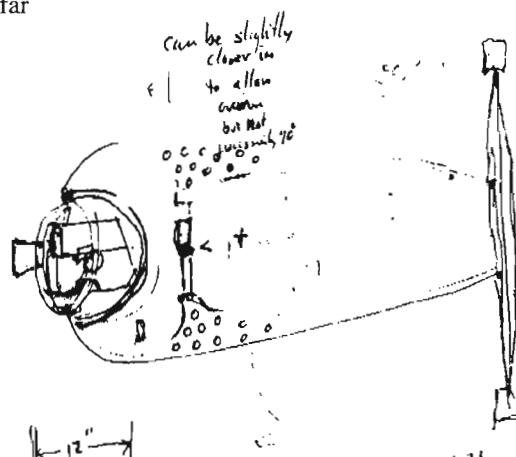
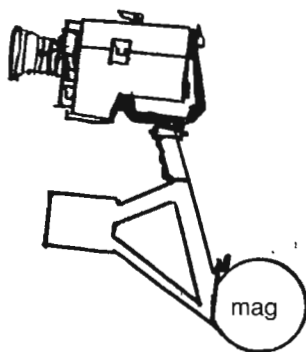
Range of lens heights: "knees to above head, minimum: waist to head". But which actual mechanism, which combination of devices would be good enough, yet light enough to add on to the weight of 35mm cameras? It was a chess problem. I had to work my way through a lot of craziness and separate the blue-sky notions from the good ideas. I have sketches and notes on motel stationary that read: "Try connecting pan and tilt to your head" (what?), "try spar extending down from camera except will hit ground on low shots and weight will be too far forward" (no kidding!), "foam

protection for when falling down!", "Try using more than one person!" (never pursued this until 1988!!), "Try: flexing parallelograms (?), air bubbles floating in egg-shaped containers of oil" (I have no idea what I had in mind here!), "...how about electronic leveling servos, laser referencing, hydraulic pistons, radar reflectors, etc. (??) Quite a grab bag! How did I ever miss atomic fusion leveling?

Although I personally gained about 20 pounds via room service, I did finally emerge with "The Invention." I had a model of the arm, made with parts from a couple of parallelogram desk lamps, and a sketch of the absolute minimum configuration for mounting the camera, battery, magazine and motor. I believed it would work well for fast moving shots, but doubted it would ever give the dolly much competition for precision (remember, I was used to versions with the inertia of the Chrysler Building). At worst, I thought it could be simpler, smaller and lighter and therefore had a chance to be sold, so I decided to build one final version.

American Optical Corporation gave me a good fiber-optic viewfinder, and Dick Defrenes fitted it to my Africa-Corps Arri-IIA. A retired machinist named Jack Hauser constructed the prototype and we had the thing ready to test within about two months.

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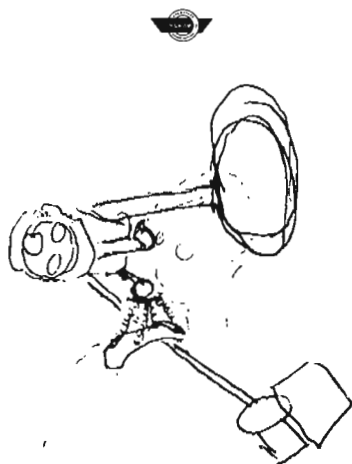


Early obsession with flying the new Panaflex led to some odd designs, some with displaced magazines, some with no magazines at all!

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It seemed quite promising, although it needed a bit of practice(!) I set out to make a final demo and had a job lined up on which to try it - an Arnold Palmer sweater commercial, to be shot on a golf course in Latrobe Pa. At the last minute, Palmer's manager notified us that he wouldn't let Arnie sign any kind of agreement-of-secrecy, so we used a tripod for the shoot, and crept out onto the course again at twilight to shoot the last few shots for the demo. I had a suspicion that the footage might be great, but my Lab account with Deluxe General in New York was stopped two days later because of unpaid bills. I had an appointment with DiGiulio, a plane ticket bought on credit, and no dough to process the film. I went to L.A. anyway, in the hope that Deluxe in Hollywood had not yet been notified I was a deadbeat. I walked in to the lab only to find that they would not release either the negative or the print. My clothes were threadbare, I hadn't eaten for a week... *(HOLD IT! - there is serious doubt about this part. Maybe my lab account wasn't closed. Maybe I made this up in some interview, but so what? It doesn't matter - it's still plenty exciting!)* Anyway, I don't want to cast doubts on any other parts of the story, so I'll check it out and report back. OK? **To be continued...**

Garrett Brown



Another mysterious drawing from 1972. Could this be a spring loaded hat for floating a camera on your head?



1974: Garrett's final prototype with arm and fiberoptic viewfinder

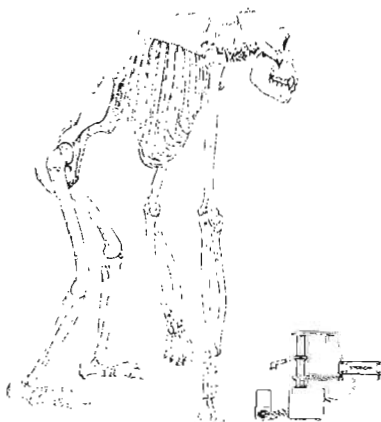
Classifieds

Available: PAG fastchargers, for one, two or four Steadicam batteries. Call Derrick at Whitehouse AV. (213) 479-8313.

For sale: Steadicam Vest: Model I with new padding and new velcro. Call Brad Olander. (619) 483-1348.

Wanted: Used Steadicams, Models I, II, or III's. For cash, trade, or consignment. Call Derrick at Whitehouse AV. (213) 479-8313.

For sale: One historically significant CP fastcharger, Model NCQC-12. Seitz maintained!! \$2000. Call Ted Churchill, (212) 691-0536. No Bluedots, please.



Paleoscene "Pole Rig" Hominid unearthed in Pennsylvania bog

Ad Dendum

Now that you've had time to digest my first column and your holiday dinners, here's some additional food for thought. One of my agency's accounts— Wendy's Old Fashioned Hamburgers in central Florida— utilizes a very good and simple system for establishing their advertising budget. It's one that you, as a fledgling advertiser, might do well to emulate.

Wendy's takes a fixed percentage of their sales and earmarks it, on an ongoing basis, for advertising space/ time and production. Why don't you do the same? It's a great way to answer that very perplexing question, "How much should I spend on advertising?"

Fast food companies traditionally spend between two and five percent of sales on advertising. Simply substitute your income for sales and — because you are no doubt dealing with considerably less than eight figures— lean toward the high end of the scale and got for five percent.

Let's say you earned \$75,000 last year. Your 1989 advertising budget should be about \$3750 to \$4000. Now that you've determined your budget, the next step in implementing an effective advertising campaign is to decide which medium best reaches your prospective employers. It is magazines, direct mail, or trade newspapers? Pick one and concentrate on it. A little bit of money will go a longer way if it's targeted and "repeated." You might do well to concentrate your dollars during specific times of the year as well, i.e., those months when film production is at its highest.

So the key to advertising planning is "targeting." Pinpoint your prospects, concentrate on one advertising medium, and, as much as possible, spend your dollars during the months when you are traditionally the busiest.

My editor has just informed me that I'm out of space, so until next time, have a happy and prosperous New Year. And a well-planned advertising campaign just might help.

Victor Sonder