In those days there were few, if any, collar attached shirts. All shirts had a neckband with a back and front stud and a separate collar. The back stud was always a nuisance, not only by occasionally being lost or coming adrift, but also it mildly pressed on the neck. Packett’s invention consisted of two strips of round rubber, one-eighth inch thick, clothed in a cotton material, one strip being sewn to the neck-band and the other to the inside of the collar. The two strips locked together and therefore one had no need for the back stud. The device was applied not only to ordinary day shirts but to dress shirts as well.

A new factory for manufacturing these shirts was launched in Brighton, and licences to manufacture were issued to the principal shirt manufacturers in the country. It was launched by an enormous advertising campaign and a sales force of 20 representatives. I remember that the advertising campaign started with a full page on the front of the Daily Mail and whole pages in all the other national newspapers. We had a midnight Champagne Party at the Daily Mail offices to launch the first front page.

From the beginning, I had considerable doubts regarding the viability of the idea, and I did not conceal my doubts from Shepherd or his father and Miller, who were both Directors of the Company. The advertising campaign was sustained and was of such weight that everyone in the country knew of the Shepherd Shirt, and every retailer carried stocks. It certainly was comfortable to wear, particularly on an evening dress shirt with a stiff collar. (There were no such things as soft collars with dinner jackets in those days.)

More and more money was poured into the business by Miller. After six months it was quite evident to me that the idea was not going to take on, but it was three years before Miller agreed to cut his losses. They had made me Managing Director of the Company, and each time I begged the Board Meeting to consider closing down, the only answer was to increase my salary by another £500 a year. At the end of two years, they were paying me £2,500 a year and £1,000 office rent. These were quite substantial figures in those days. Finally, after two years I felt it wrong for me to carry on and I resigned, much against their wishes. The Shepherd Company carried on for another year and then closed down.

This Shepherd interlude was valuable to me in two ways. The experience itself was one which I would not have missed, and secondly, without my seeking it, it had provided valuable finance for me during an extremely sticky period of my own company.
As I mentioned, the company of W.H. Colt Limited had suffered severely during the depression and by 1932 it was in very serious difficulties, in spite of my putting into the company the bulk of what I received from Shepherd Shirts Limited.

In 1932, Colt and I decided that the only possible thing to do was to put W.H. Colt Limited into voluntary liquidation. The company failed with something over £2,000 of creditors. I was determined that no-one should lose, as a result, and within four years I had personally repaid all the creditors out of my own pocket.

Colt and I parted company in a perfectly friendly way and we had a gentlemen's agreement between us that he should take over the timber house and poultry house side of the business from the Liquidator, and I should carry on the W.H. Colt (London) business and Colt Ventilation Limited.

This was a natural division between us, as I had handled from London all the non-timber building side of our activities, and Colt had handled the timber building side from Bethersden. The London company and the Ventilation company had continued throughout to make small profits and had considerable potential. It was the timber building side of the business that suffered in the depression and caused the failure of W.H. Colt Limited.

**THE COLT WINDOW FAN**

This is a fascinating story and one which carries some regrets with it. Kuckuck was the first man to develop the idea of a window fan fitting into the glass pane of a window. This was some years before the Vent-Axia. I used to go over to Germany about twice a year, sometimes to the Leipzig Fair or the Hanover Fair, and occasionally to see Kuckuck in his laboratory.

When I first saw this window fan I remember my feelings. It looked to me to be a winner. To cut a long story short, we encouraged Kuckuck to perfect the design and we had prototypes made here. Pressed tools and spinnings and assembly was carried out in Birmingham for us. Quite a number were sold, principally for offices, but we had no proper channel for selling.
We were not in the retail or wholesale electrical appliance market, and after establishing a modicum of sales, we interested Richard Crittall & Co. Limited, who agreed to take a licence to manufacture and sell. I made the great mistake of not stipulating a minimum royalty or a minimum number per year, and Crittalls literally sat on the thing and did little or nothing with it. Within two years, Vent-Axia appeared. If I had handled the thing differently, we might today have the equivalent of the whole Vent-Axia market.

THE COLT COWL

The genesis of the Colt Cowl was interesting.

One feature of most of Kuckuck's ventilators, particularly his vehicle ventilators, and in fact the same idea was applied by him in the window fan, was a dished plate. Air impinging on a dished plate caused an increase in speed of extraction immediately behind it.

One day, I was watching Kuckuck using an external anenometer, the type which consists of four cupped vanes which spin round in the air. The idea occurred to me that one might devise a form of chimney cowl to cure smoky chimneys with four dished plates and slots between them. I put it to Kuckuck and he immediately got to work on the drawing board. Incidentally he was a marvellous draughtsman, and he produced the Colt Cowl substantially as it is today.

He demonstrated conclusively by wind tunnel and also smoke tests, the effectiveness of this as a cure for smoky chimneys, and I decided to market it. Small advertising spaces were taken in the national dailies and the first winter's sales produced a real headache. The cowls were costing about 5/-d each to make, I think the actual figure was 4/10d, and we were selling them for 25/-d each. Each sale was costing just over 20/-d in advertising costs. I decided to carry on for another year.

In the second year the position had improved, but we were still selling the Colt Cowl at a substantial loss. I nearly decided to cut my loss, but held on for one more year. In that third year we turned the corner by a substantial margin, and the Colt Cowl has never looked back.
HORMONE CREAM

This was something right out of my line of country, but it amused me as an experiment from the marketing angle. A friend introduced me to a Mr. H.R. Ryder, who was an industrial consultant chemist, specialising in beauty preparations. He had a formula for a hormone face cream, claiming it wondering rejuvenating properties. I got an industrial designer to design a particularly attractive pot. I remember it had a black and gold label, and put it on the market as L.N.R. Hormone Cream.

I took an office in a Doctor's house at 129, Harley Street, and the cream was sold from that address. The claims made for it in the literature were unexceptional but I always doubted my morality in using that address and its connotation. I am afraid my heart wasn't in the business, and although the product sold reasonably well, I let it drop, and left Ryder free to carry on himself.

BLANDS RAZOR BATH

I had always been rather gadget minded. Bland's Razor Bath was another idea which intrigued me from the marketing angle. In those days there were no electric razors and practically everybody used a safety razor. There were no stainless steel razor blades. The trouble was that after shaving, one had to take the blade to pieces, wipe the blade and the razor on a towel, sometimes cutting the towel, and then put it away until the next day.

A friend of mine introduced me to a solution which he told me he had been using for years, which you simply put in a glass, put the razor into it, without undoing it, and left it there until the next morning. Next day you simply took it out, flicked it under the tap, and used it right away. I tried this out and the thing worked. It actually resulted in the blade lasting longer.

The solution was simply glycerine and distilled water with a slight perfume added. You topped up the solution about once a week. I realised that if one could design a neat little bath in the form of a glass jar with a lid with a hole in it, you could just put the razor into this, put the lid on with the handle sticking up through the hole and save all the trouble with the safety razor.
My marketing idea was to sell it almost entirely through Gentlemen's Hairdressers. I got an industrial designer to design an attractive squat jar, with a nice lid, having a hole in it for the handle of the razor. The solution itself was sold in 8-oz. bottles.

My idea was that a demonstration set, consisting of a razor standing in one of these special containers, should be on a little attractive display unit in front of each basin at the Hairdressers. Simple colour leaflets were printed, telling the features of the device, cost of refills and "Apply to your Barber for refills," etc. The idea was that a man sitting in a barber's chair is pretty well captive and is bound to say to the barber "What is that thing in front". That is precisely what happened.

I employed experimentally two salesmen in London going round the Hairdressers and the thing took on. It became apparent that one couldn't carry on in this way and service the sales, and deal with them without being in the trade, and I eventually passed it over to Osborne, Garrett & Co., the Hairdressers' Sundriesmen, taking a royalty on sales. I am afraid, as happened with the Colt Window Fan, they put no real effort into selling the thing and, although I still hear from time to time of people using Blands Razor Bath, I haven't seen one for a long time.

**THE COLT MEMO PAD**

This was another of my brainwaves. Knowing the problem of not having scrap paper to write on on one's desk when one needs it, I thought that if one had a sectional pad always at hand, it would be a saleable idea. A simple one in metal was designed, holding four pads, and the more elaborate one such as the one I still have on my desk, in plastic, with five pads and a clock on it.

My main idea was that one could afford more or less to give away the holder itself at a cost and make one's money on the refills. The fallacy was that the refills lasted too long. In fact my own one on my desk, with five sections, lasts me at least six months.

At the bottom of each little pad was a re-ordering form to W.H. Colt (London) Limited, addressed to Bush House. We still get a few of these back. Some of the plastic models were designed with a chromium metal rim. This was one of the first products with chromium copper deposited onto plastic.
LITTLE CANADA

Three years before the war, Bill Howard had purchased a most attractive piece of land of about 12 acres, fronting Wootton Creek in the Isle of Wight. He had put up a timber bungalow for himself and his wife and two kiddies, and his idea was to build on the land, log cabins for letting to families during the summer months. He came to see me about shingles, and I sold him on the idea of Canadian log siding, in addition, for the cabins.

I was intrigued by his idea, and helped him design the family cabins, each with its little kitchen and accommodation for six people. The following year, he asked me if I would join him in the venture and develop the site. I agreed to do so and I suggested that we called it "Little Canada".

In addition to the family cabins which he had already built, we built two ranges of bedrooms, and a swimming pool. I think, if I remember, there were about 20 double bedrooms in each range of cabins. Howarth was absolutely brilliant in not only creating something out of pretty well nothing, but in doing everything, including drainage and building the swimming pool, etc., at the lowest possible cost.

In 1939, Little Canada was opened to the public and the first few families arrived. The war came, and the whole site was requisitioned by the War Department. The War Department paid rent, and after the war, substantial compensation was received. Howarth sold his share to me, and later, John Gardner & Co. Limited, the caterers, took an interest with me in further developing the project. We subsequently sold out at a good profit to a new group. I have since heard that Little Canada has been considerably developed and is quite flourishing.

CHILDREN’S CAMPS

In 1938, after the time of Munich, and when it became evident that war would be inevitable, the powers that be decided that, in the event of war, as many children as possible should be evacuated from the big cities. It was decided to build out in the country, 32 large children’s camps, each holding about 500 children. The intention was that whole schools of children, together with their teachers, should be evacuated and live throughout the war in these camps.

The buildings were designed to be made in timber, very well planned and fitted, and we persuaded the Ministry of Works that shingles were the obvious roofing material.
We obtained the contract to roof these 32 camps, a colossal undertaking, and certainly the biggest shingle contract ever placed on this side of the Atlantic, and possibly even in the world. The total roof area of each camp was approx. 50,000 sq. ft., requiring 2,000 bundles of shingles.

The work was to commence in the middle of 1939 and all the camps were scheduled to be completed by early 1940. It was a colossal undertaking, and we calculated that to complete the contract in time we would need to employ 180 shinglers. This was a tidy proposition, particularly in view of the fact that, at the time, I think if I remember, we had eight shinglers on our staff. Some years before, I had engaged two Canadian shinglers who, in turn, taught the rest of our men who had been recruited from among slaters and tilers. The techniques of fixing shingles was quite different to slating and tiling, and in fact the Slater and Tiler had to unlearn quite a bit of his own previous technique. I decided to send over a man to Vancouver, to recruit 15 shinglers and induce them to come over here with the guarantee of work and the guarantee that their passages would be paid back to Canada at any time that they wanted to return.

The recruiting man I sent was a Canadian who happened to be over here and who knew the shingle industry. He was a bit of a rascal and the bargain I made with him was to get 15 first class men. I gave him £1,000 to cover his return fare and any inducements that he had to offer to get any of the men. He got me a marvellous bunch of fellows. There were one or two black sheep amongst them, but only one of the fifteen went back to Canada before the job was finished, and bear in mind that it wasn't finished until well into 1940, when the war had been on for several months.

We then had the problem of recruiting slaters and tilers over here, who were prepared to learn from these fifteen shinglers, and in spite of the fact that we were employing these 160 men scattered way out in the country parts, the contract went extremely smoothly.

There were many amusing stories in connection with this undertaking. One fiery Canadian, I remember, regularly used to get tight and run amock, but everybody loved him. All of the Canadians, when the job was completed, were given a substantial bonus, and I well remember that one of them satisfied the ambition of his life, which was to spend a weekend at the Savoy Hotel, London.
TOOTHPASTE

One of my many patented brainwaves which came to nothing, but which I still feel has got something, was in connection with toothpaste. Toothpaste manufacturers endeavour to combine in their formulae, antiseptic, cleansing and whitening agents. The old tooth powders, for example, before the advent of toothpaste, always contained a slight amount of abrasive material which would assist in cleaning the tartar from teeth and help to whiten them.

My idea was to devise a duplex toothpaste tube, consisting of two compartments, one main compartment holding about 7/8 of the whole, would contain a normal toothpaste, and the small compartment at the other end, with a separate cap, would contain a somewhat abrasive compound.

I called the toothpaste, One-In-Seven, the idea being that once a week you cleaned your teeth with the abrasive toothpaste, and for the rest of the week cleaned them with the ordinary toothpaste.

I suppose I didn't try seriously enough to place the idea. I sounded one or two of the major toothpaste manufacturers such as Kolyne, MacLean, and Proctor & Gamble. P. & G. very nearly fell for it. I think that my proper line of approach would have been to a firm in the chemist or cosmetic trade, who did not manufacture and market a toothpaste, but who might have been open to such a new appeal.

CONTINUOUS FILM PROJECTION APPARATUS

Some years before the war, I invented and developed an apparatus for continuously projecting any length of film both in 8mm and 16mm.

At the time the continuous projection film had never been successfully achieved without repeated breaks occurring in the film. My apparatus was singularly free from this trouble and, in fact, year after year, it was used on our Stand at both the Ideal Home Exhibition and Building Trades Exhibition, running at the former Exhibition 12 hours a day for three weeks on end.

I had developed it primarily for our own use and made little attempt to exploit it on the market. I remember Kodaks in 1938 became interested in it, but for some reason, which I do not remember, they did not proceed.
SPINACH

One of my pre-war Bush House friends was Harold Wood, the founder of the Company of Veteran Motorists, out of which incidentally he made a modest fortune.

He came to me one day with the idea of marketing Spinach in the form of synthesised tablets. I thought the idea was worth investigating and did quite a bit of research. Those were the days of much interest in vitamins and vitamin tablets as a "cure-all". Spinach was known to be rich in vitamins and other valuable health-promoting substances, and incidentally this factor was much publicised in the Popeye cartoons of the day.

I checked up with the Medical Research Council, who stated quite definitely that the available evidence suggested that the modern method of storing and concentrating food caused little or no deterioration in their nutritive value. They went further and stated that condensed and stored by the best modern methods, it was likely to be superior in many respects to similar food in its fresh condition.

I contacted a nutritional chemist who, after a number of experiments, produced synthetically, tablets of spinach at a cost of about 10d a lb. Each tablet contained the equivalent of a reasonable helping of cooked spinach and was about the size of an aspirin tablet. It contained in concentrated form all the valuable qualities of spinach; it contained in correct proportion the proteins, carbohydrates, fat, mineral matter and the four vitamins which are to be found in spinach. I recollect that the first tablets produced were somewhat bitter. Eventually this bitterness was eliminated and spinach flavour in various pronounced quantities were rapidly produced. The product might easily have become a best seller, such as Yeastvite, Yeastamin, and the like, but I eventually abandoned it.

I have mentioned a number of projects which I put on the market, many of which, for various reasons, been discontinued. The gadgets, ideas and inventions of various kinds that I considered between the years 1925 and 1939 were many times the number which I have mentioned. Some of these are worth a passing reference.

Kuckuck in particular was prodigal in his output of ideas.
He invented a long-playing gramophone record long before the advent of the modern L.P. and he could make a 12" record play for nearly an hour by a gradual increase in speed of the turntable as the needle proceeded towards the centre. This invention had a very considerable potential in connection with sound films. In the early days, the sound was on large gramophone records and not on the edge of the film. The projectionist in the cinema had to change the record, I think, if I remember rightly, every 12 minutes, and there was also the problem of synchronising the change with the film.

Westinghouse Company who, at that time, were the principal company in the sound recording industry, were extremely interested in this long-playing gramophone, but it arrived just at the time when the invention of sound on film was developing. It was perhaps just as well that the Kuckuck invention was not a year earlier, otherwise we might have spent a lot of money on it, only to have it killed stone dead.

Other Kuckuck inventions which never came to light, but which appear to have some merit, were a Vacuum Cleaner Nozzle which multiplied the suction effect of a vacuum cleaner.

Another product of my own invention which never got beyond the prototype stage was a Photographic Darkroom Bench, which combined a great many features, the principal one being a gentle rocking motion imparted to the developing and fixing dishes, leaving the operator's hands free. It also incorporated a heater for maintaining temperature and a number of other features.

That is the history of the Colt Companies up to the outbreak of the war. During the war, industrial ventilation became of primary importance, due to the blackout, and, with the help of the genius of L. Gordon Davies, the whole series of blackout ventilators were developed. Shingles and everything else more or less disappeared, and all our efforts were concentrated on ventilation.

Our Ventilation business during the war, developed almost entirely into solving problems of blackout ventilation; in other words, getting air into or out of, industrial premises, without any emission of light through the ventilators. This we also applied very successfully to ships at sea.
Gordon Davies designed an extremely clever blackout ventilator which fitted into ships' portholes and which, in daytime, could be taken out of the porthole and stowed away. The ventilator had on the outside of it a double scoop so that the air entered through one of the scoops, passed round the cabin and was extracted out of the rear scoop. These ventilators were completely air-tight.

Incidentally, a secondary use was found for them, in the prevention of pilfering. Very often when a ship was tied up at a quayside and portholes happened to be left open, pilfering was pursued as a business, by locals, by means of a hook on the end of a long rod. By clamping these sidelight ventilators into the portholes, this was completely prevented.

In order to fit up a ship, every porthole had to be measured, because there were many different sizes, and I used to thoroughly enjoy going down to the London Docks and crawling over ships measuring portholes.

We worked on a number of projects for the Ministry of Shipping, but one of the most interesting ones was the opportunity we were given to ventilate a special type of highspeed rescue craft, rather like an M.T.B. This particular experimental craft was fitted with two Bristol Siddeley Aero engines. The noise and the heat generated by these two engines, was almost unbelievable.

Gordon Davies designed a series of ventilators which were fitted to the deck above the engine room, and which had balanced louvres, somewhat like the Colt C.F. ventilator louvres, which smacked shut when a wave hit them. Gordon Davies and I went one day on a trial run in the Solent. The trials lasted the whole day and we had to go down several times into the engine room to see the effect of the ventilation. In spite of the fact that we were given earplugs, I was deaf for a week afterwards.

During the war we did quite a bit of work for Trinity House. One problem they had was the ventilation of the lamp room at the top of the Ediston Lighthouse. To survey the job meant going out to the Ediston, a good many miles off Land's End, and being hauled up by breeches buoy. All that would have been rather fun, but there was no guarantee as to when we would get back again. It was winter time and there was the possibility of being marooned there for several weeks. I am sorry to say that we side-tracked the project.
Towards the end of the war, various peacetime ventilators were designed in preparation for the switchover from blackout ventilators. I budgetted that we might make three years of losses after the war before we turned the corner into peacetime ventilation. In point of fact, we didn't make any losses at all, but went straight ahead.

Much of the success of this transition period I attribute to Gordon Davies. He was responsible for the original C.O. ventilator, for the Inflow Unit, for the peacetime P.R., which had originally been a Blackout Ventilator, for the G.P., and the domestic range of ventilators. The Two-way Fan, was of course his design. The only one I claim as my own is the S.R. ventilator. The idea of this originated from the Colt Cowl, and the similarity of principle is apparent.

If I were asked what single thing had influenced me most in business, I think I would answer "a straw hat". In my youth, every man wore a straw hat in the summer. In the early 1920's, the father of a friend of mine had been a wealthy straw hat manufacturer in Luton. The straw hat went completely out of fashion and he was rendered penniless. This made a lasting impression on me. Incidentally, Vauxhalls set up their factory in Luton to take advantage of the available labour from the hat-making industry.

If there is a lesson to be learned from the Colt Story it is, perhaps, that diversification pays. If I had stuck to one line, Colt Ventilation might never have been born.