



Keeping in Touch 39

2020 – A Survey

A man went to see his local optician for his annual eye test. The optician put a strange contraption over his face and asked him what he could see. “I can see empty airports and empty football stands. I can see closed theatres, closed pubs and closed restaurants” said the man. “Splendid” replied the optician, “You have 2020 vision.”

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Molly’s Christmas Secret

You will remember Molly. She’s grown up a little, her spelling is slightly improved and she is very much looking forward to this year’s Christmas, in spite of the hassle caused by our non-too-friendly virus. What is more, she has a big secret.

MOLLY’S CHRISTMAS 2020 by Susan Hillyard

I’m glad that we went back to school, but I am even gladder that we have browken up for the Christmas Holiday. Miss Pulford who is my teacher said that weed all werked very hard and she was pround of us. She said we should all have a good time at Christmas but we have to remember to stay away from old people in case we might have the virus and we might not be poorly but we might pass it on and we dont want our grandmas and grandads and other old people to catch it. Miss Pulford is old becaus she told us she had her 30th birthday wile we were on lockdown and she cudn’t go anywhere. She told us that because James Odonnell had said that he only had his mum and dad and two brothers at his party so it wasnt reely a proper party it was just tea with cake.

Last Monday their was a nok on the door and daddy showted YOU TWO COME QWUICK so we did. There was a man with a tin and a mask on. There was also father Christmas sitting in a trailer and Carol was singing and music. The trailer had a car in frunt not raindeers. I remember last year it was the same and I nearly cride decaus I thortght father Christmases raindeers had been run over by the car. Then my friend Skylar told that her grandad was dressed up as fatgher Christmas. When we were torking to Miss Pulford abowt Christmas Skylar said that her uncel Tony was going to dress up as father Christas this year becaus her grandad was to old. So this year i didnt cry instead i just waived at Skylars Uncel Tony.

Today we did some baking. It was like bake off but without Paul Holiwud. Daddy helped me mak some minspyes. Daddy calls then mini spyes but Peter calls them minsed eyes but I told him he is gross. Peter wotched a bit of Im a Sellebrity and now he thinks hes all grown up. He told me peepal eat worms and eyes and things but i dont beleeve him. Peepal arnt that stupid.

Mummy asked me today what I want for Christmas and I said some LOL stuff and some glitter nail varnish. She said that if I have been good I might get some but if fagher Christmas has put me on his norty list i might not get very much at all. She said Santa nows about everything. I do hope he thinks you have been good. I said really mummy and she said of course silly sausage.

When daddy tucked me up in bed I said Daddy Ive got a secret and he said tell me Molly I wownt tell anyone else. I said you have to promis because it is a VERY VERY BIG secret and daddy said yes I promis and so I wispered it reely quietly and he put his head on one side. I thortht he was going to cry but instead he said that's ok my lovely little Molly and he hugged me and I hugged and hugged my lovely big daddy.

Then we talked for a bit about my VERY VERY BIG secret and we decided not to tell Mummy in case she gets upset. We decided that we will let her enjoy Christmas this year and then perhaps next year she might be ready for us to tell her that Father Christmas used to be real a long time ago but he isnt real now. It's a shame to spoil it for her but daddy and I think she will be old enuff to know next year.

Anyway I expect we will still have a great Christmas and I hope every body else does too.

Needless to say, there are hundreds of representations of dear old Father Christmas in existence but this particular one, a Post Card from 1919, seems very suitable for the Weekly Letter because of its limerick.

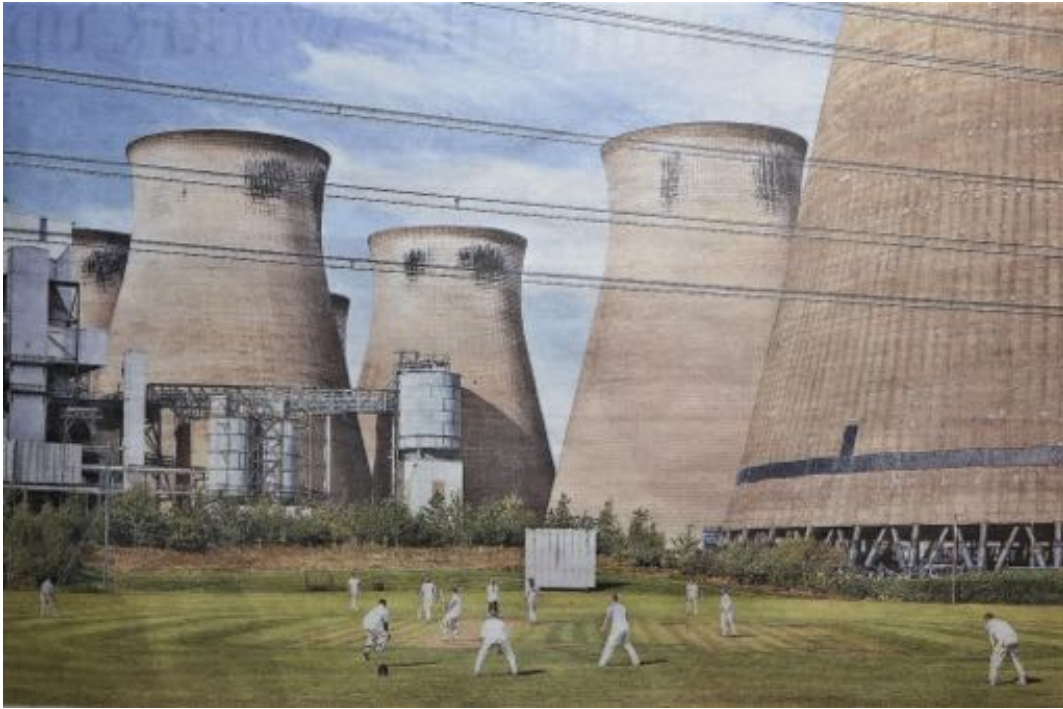


A jolly old boy, full of humour and joy
May you find Father Christmas to be.
May he only give ear
To the voice of good cheer
And whatever enhances your glee.

Saves me hours of sleepless nights trying to find the optimum rhyme!



End of an Era



The attached photograph represents the last cricket match to be played on the Ferrybridge ground prior to the demolition of the Ferrybridge Power Station. The photograph must have been taken in the summer of 2019, before the final demolition of the four cooling towers in October 2019.

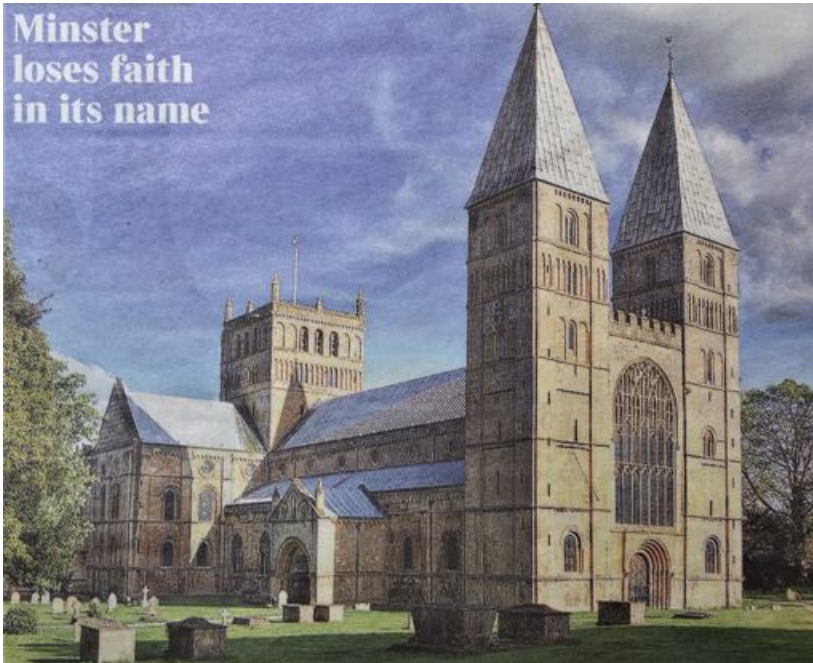
Electric power was generated at Ferrybridge (near the A1M, not far from Pontefract – it was clearly visible as you drove up or down the A1M) as early as the 1920s but the huge coal-burning Ferrybridge C station only came into existence in 1966. It was dominated by a group of eight cooling towers and made a major contribution to the UK power supply until 2016. Problems began in 2014, when a fire caused major damage. In particular, the desulphurisation plant was destroyed and, though the two generating plants were brought back into service in 2015, they were only allowed to burn low-sulphur coal. A suitable supply of this rare commodity ran out in 2016, thus leading to the closure of the whole plant.

So much for the power station – but what about the cricket? Two members of the fielding side are not accounted for as a result of the field of view of the photograph but there are other, more puzzling features. Note that the batsman has attempted a pull shot but failed to connect because the wicket keeper is seen in the act of taking the ball down the leg side. He is clearly standing some two yards behind the wicket, which implies that the bowler was rather on the quick side. This granted, one would expect the bowler, himself, to have followed through in his run-up to a point some way down the pitch but he can be seen standing bolt upright in line with the bowler's wicket and surprisingly wide of it! Only a spin bowler could possibly be in such a position after delivering the ball. What, exactly, is going on? This is a photograph, not a painting, so there can be no allowance for artistic licence! I cannot possibly believe that the whole thing was posed but it really does look a bit odd.

(You may need to use the zoom facility to fully appreciate these subtleties.)

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Southwell Minster



It seems that there is a possibility for Southwell Minster to be renamed as 'Southwell Cathedral' on the grounds that very few people, these days, know what a 'Minster' is! Don't they realise that one of the finest cathedrals in the land is called 'York Minster'? Such madness makes me squirm, I must admit. If they don't know what a 'Minster' is, why don't they look it up on the Internet, for God's sake – I mean that literally. Surely just about everyone has access to the Internet these days and it can surely be used for

other things than playing violent war games! Grrr! There are times when I despair of the human race. Not a very Christmassy spirit, I must admit – perhaps it's the result of the lockdown?

Anyway, while on the subject of Southwell Minster, I am reminded that it really is a wonderful example of Norman architecture – just look at all those rounded arches! Look, too, at those pointed roofs on the western towers. They are more typical of French Romanesque than anything seen very often in England. In fact, these roofs were rebuilt in 1880 after a fire but the design follows the twelfth century Norman original. The whole of the nave is Norman apart from the west window, which was replaced in the so-called 'perpendicular' style of the fifteenth century. However, the present chancel dates from the middle of the thirteenth century (Early English), while the Chapter House (the bit which sticks out a long way on the north side) was added towards the end of the thirteenth century.



The Chapter House (a sort of meeting room for the clergy) is famous for the beauty of its stone carving. We show an example.

But perhaps the oldest piece of stonework is in the north transept tympanum, a piece of Anglo-Saxon stone carving, showing St Michael contending with a dragon and King David attempting to keep his sheep safe from the attentions of a lion.



There was an Anglo-Saxon church on the site before the present building came into being, so it is likely that this piece of stonework came from it. Finally, I can't refrain from showing you a wonderful example of a 'Green Man' carved as a 'Misericord' – underneath a wooden seat in the choir stalls. The Green Man has a pedigree stretching back into the depths of antiquity and is thought to represent the rebirth of nature in the Spring. Sometimes the face is made up of leaves and often (as here) the face has rampant foliage growing from the corners of its mouth. It is certainly a pagan motif so one might be a little taken aback to see it in the chancel of a Christian house of worship. However, it is well known that the early Christians in England took over several Roman Gods and other symbolism so this appearance of a Green Man in Southwell is far from unique.



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Art Group

Bernie Besnard has obviously noticed that I am running out of new artwork and taken the opportunity to send me several examples of his work, which I am happy to reproduce here. Thanks Bernie.



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Metal Fatigue

Jim Benn has already brightened our Weekly Letters with accounts of aeroplanes and ejector seats but this is something a little different – an article on metal fatigue. Technical, yes, but well worth the effort to understand, particularly in view of the present problems with collapsing bridges, both here in Nottingham (Clifton) and, of course, the Hammersmith Bridge in, well, Hammersmith! (The latter only coming to notoriety when it was realised that it would prevent the University Boat Race from being rowed on the Thames – the very idea!) Both of these bridges (and probably many others?) have suffered from metal fatigue, which will cost millions and take years to repair.

Metal Fatigue

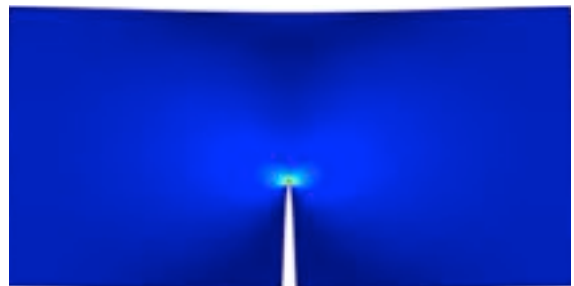
This is a slightly more complicated subject but is vitally important to aircraft engineers who know it just as “fatigue”. So what is it?

If you take a bit of thin wire and pull on it and pull hard enough it will break! Obvious really.

An aside. What already? What has happened to the wire is that it has reached its “Ultimate Tensile Stress”. So what is stress? We all know what stress is, you say, what with COVID-19 and all. However, engineers know stress as “load over cross sectional area”. Traditional engineers, like me, think of it in Tons per Square Inch (T/in²). Modern engineers use MegaPascals (MPa). I never really understood them!

Anyway, back to our wire. If we get another bit and pull, say, half as hard as on the first bit the wire won’t break. Again, obvious. However if we pull on the wire and let go, lots of times, thousands of times, the wire will eventually break. This is fatigue.

So, what has happened to the metal? Well, if you look at a piece of metal under a powerful microscope you will find that the surface has thousands of tiny cracks in it, however much the metal has been polished. Now, a very unfortunate effect of a crack is that the stress at the root of the crack is many times higher than in the surrounding metal. The picture shows a stress map of an object showing the stress on it. It has a notch representing a crack. If you look carefully you can see that the stress at the root of the notch/crack is very much higher.



If the stress in the metal is high enough the stress at the root of the crack will become high enough to make the deepest crack bigger. This might be only by a few atoms at first but it gets bigger. That is, of course, the worst possible result, because the bigger the crack the bigger the stress at the root and so on. Eventually the crack gets so big that the piece of metal cannot take the load and it fails. It fails in fatigue and by that time the crack is known as its critical crack length. One can mitigate the problem by avoiding sharp corners and smoothing the metal as much as possible but it can't be stopped. If the stress in the metal is high enough it and the number of cycles is also high enough the component will fail.

We're doomed! I'll never fly in an aircraft again. Err, hang on, because of something very important. That is before something fails in fatigue it cracks and cracks can be detected. Aircraft engineers are very, very good at detecting cracks and have a number of tools at their disposal. You might have had an endoscopy in hospital. I have. The endoscope that doctors use is identical to one used in the aircraft industry to look for cracks in tight corners of the aircraft's structure. Just one example.

When a new aircraft is introduced into service, be it a small military aircraft like a Hawk or a big civil aircraft like a Jumbo Jet, an early airframe is taken off the production line and put in a huge rig and pulled and pushed, bent and stretched, just like the real aircraft. The difference is this "Fatigue Test Specimen" can "fly" 24 hours a day, 7 days a week. Every so often the rig is stopped and inspectors pore over the test

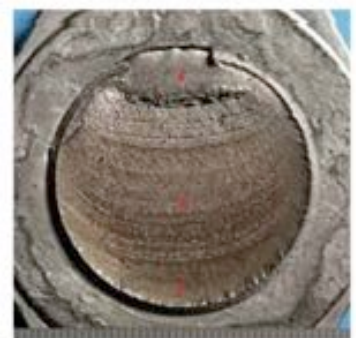


specimen looking for cracks. If something is found it is first logged and then assessed. If the crack is big enough the fleet of aircraft would be grounded but this is incredibly rare. Much more likely an instruction would be sent out to look at that location in the fleet of flying aircraft and report back. In the more serious cases the offending component would be changed. My friends at BAe Systems have kindly sent me

a picture of a fatigue test. In this case it is the Hawk Life Extension Fatigue Test, which I worked on. Inside this huge rig is a whole Hawk airframe! You can just see it.

Bear in mind the Test Specimen "flies" 24 hours a day so it is way ahead of the flying aircraft in its fatigue life so nobody is at risk. Also some of the flying aircraft are instrumented so the experience of the real aircraft can be fed back to the Test Specimen to tune the "pushing and pulling". This carries on until the fatigue life of the aircraft type is determined. With careful design this is a very long time and aircraft can and do fly safely for decades.

Sadly aircraft do crash. It very rare but it does happen. You know that accident investigators sift through the wreckage very carefully looking for clues. There may be a number of reasons for a crash and structural failure is vanishingly rare these days. However, if fatigue is the cause of the crash, the metal actually tells you! If the investigator looks at the broken piece, the "fracture face" can tell the inspector that it's broken in fatigue. Here is a photograph of a test piece that has failed in fatigue. You can see where the crack has grown ("beach marks" as they are known) and where it has finally failed.



So I hope this has told you a bit about "fatigue". One final thought, flying is very, very safe. People ask me what is the most dangerous part of flying and I always say, "Driving to the airport!"

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Quiz Corner

Herewith the answers to Peter Shreyhane's 'Quiz with Answers'. You will remember that the task was to relate each answer to the appropriate question.

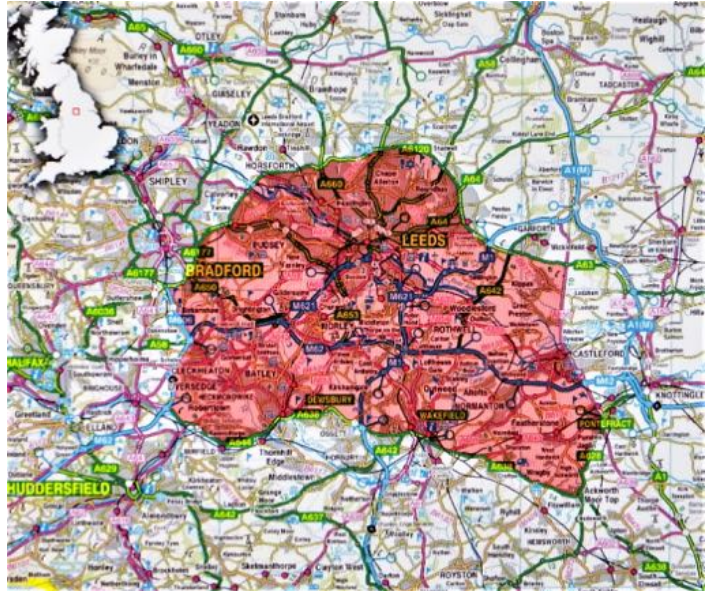
Answers

- 2 - Number of landlocked Countries in South America.
- 4 – Number of lions by Landseer at the foot of Nelson's Column in Trafalgar Sq.
- 5 - Number of events in the Pentathlon.
- 6 – On a mobile phone the number that is on the same key as M,N and O.
- 10 – In the Bible, the number of Plagues of Egypt.
- 11 – Number of Apollo Mission that first landed men on the Moon.
- 22 – Yards in a Chain.
- 23 – The 9th Prime Number.
- 30 – Number of years for a Pearl Wedding.
- 35 – Minimum age to be President of USA.

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Creative Writing Group

This week's contribution comes from Chris Tomblin on the ever-important subject of 'Rhubarb'. Did you realise that there is a 'Rhubarb Triangle' in West Yorkshire? It covers an area including Pontefract, Wakefield, Bradford and Leeds but I remember seeing rhubarb being grown near Halifax, too. It has to be grown in semi-darkness to 'force' it – otherwise it tends to be a bit coarse. This means it's grown in long, dark sheds which match well with the Yorkshire landscape of 'Dark Satanic Mills' envisioned by William Blake – though that is now history, it was true enough in the nineteenth century when Blake was writing.



RHUBARB

by

Christine Tomblin

Henry grew rhubarb. He had devoted most of his life to it, growing every variety and growing it better than anybody else he knew. The only problem was that Henry didn't actually like rhubarb. He hated the taste, he hated its slimy texture when cooked and he didn't really care for the word itself, rhubarb. He thought it was rather a rude word. He had started growing it when he was twelve years old and he had grown it for the last fifty-five years. His father had been keen for Henry to have a hobby that would get him outdoors as Henry's current hobby was an unhealthy (in his father's opinion) obsession with the Mexican civil war and its battles. He read, but only books about the civil war, painted toy soldiers in the uniforms and colours of the civil war and then lined them up in battle lines on the dining room table. Henry's mother wanted her table back.

They had tried him with a pair of roller skates but he had under encouragement from his mother used them only once and discarded them by the dustbin where they had been collected in error by the dustbin man.

One day Henry's father said to him 'Right Henry lad let's get you started with some gardening, what do you want to grow?' Although Henry's father was generally a mild-mannered man Henry knew he was not to be crossed when he got a bee in his bonnet about something. However, Henry's mind was a blank, he had no interest in gardening, but his father was becoming quite persistent. He then recalled a conversation he had overheard between his mother and her friend who when asked the best place to grow rhubarb had replied 'Well right here of course, we're in the middle of t'rhubarb triangle' 'Err Rhubarb' Henry blurted out desperately. 'Rhubarb' echoed his father doubtfully 'Are yer sure lad?' Well no Henry wasn't sure, not sure at all but he nodded quickly anyway.

So off they went to his father's allotment at the end of their street where he was given a small patch of allotment at the far end, furthest away from the shed where Henry's father kept a primus stove to make regular cups of tea. Rhubarb became Henry's new hobby. He read all the books he could get his hands on; his favourite being The Rhubarb Compendium which he would pore over endlessly when he wasn't tending his plants in the allotment. His mother would use up all the Rhubarb he grew making puddings, pies, preserves and even wine but Henry never touched them. He hated Rhubarb!

Eventually as time went on his Father and Mother passed away and Henry carried on living in the house and tending his rhubarb plants leaving his father's part of the allotment to become overgrown and a mess. He had no interest in any other plants. This went on for some time until eventually a man from the allotment committee paid him a visit. 'Erm we've had a complaint lad about t'state of your allotment. This ends alright' pointing with his thumb to the neat rows of rhubarb and forcing tubs.' But this end you'll have to get it all cleared out pronto'

Over the next few weeks Henry cleared out the dead and overgrown part of the allotment until there was no trace of his father's plants and he then prepared the soil carefully. He consulted his Rhubarb compendium and sent away for some new species with which he replenished the allotment. When he harvested his rhubarb he just simply gave it all away to the other people on the allotments who assured him it was the best rhubarb they had ever eaten.

And so he went on, his life followed a pattern of researching and tending his rhubarb on the allotment and once he retired from his job at the factory where his father had worked before him he even ventured further afield. He took a guided tour of the forcing sheds at Oldroyd's farm in the rhubarb triangle and even attended the Wakefield Rhubarb festival.

One day when he arrived at the allotments, there were men standing around in suits looking at plans and waving their arms about. Others had surveying equipment and seemed to be measuring something. Nobody knew what was going on but a few days later when Henry was having his shave upstairs in the bathroom a letter plopped onto the mat addressed to his father.

Dear Mr Bradshaw,

We have to serve you notice that in two weeks' time the allotments on Park Lodge Lane will be cleared and work to build a Macdonald's, KFC and Lidl will commence. Will you please ensure you remove all valuables from the site.

Yours

The Allotment committee.

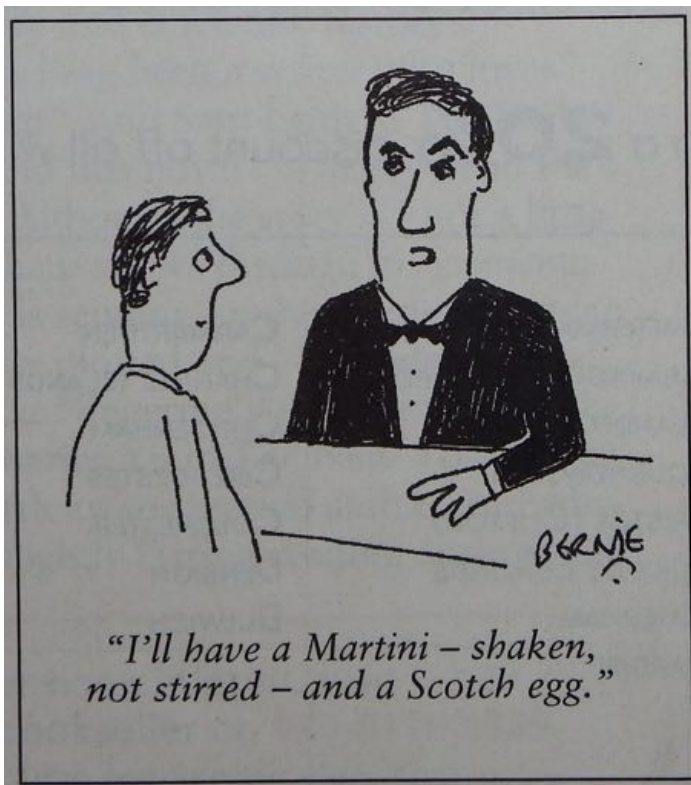
There was Pandemonium at the allotments when Henry got there later, everybody was stood about shaking their heads and gesticulating wildly. 'Aye up Henry what do ya think t'news' asked one. Henry just shrugged and calmly removed his valuables (including the primus stove) took one last look at his rhubarb and went home.

Now what thought Henry as he sat in the front room later with his cup of tea? He looked at the clock, tapped his fingers on the coffee table and glanced over at his bookshelf filled with his Rhubarb reference books. He suddenly had an idea. He went out to the shed in the back yard and came back with the step ladders which he used to climb up to the attic which was filled with boxes. Eventually he found what he was looking for and carefully carried several dusty boxes downstairs where he unpacked the contents. Only when he had replaced all the books on his bookshelf and set out the dining table did he lean back with satisfaction. 'That's much better' he said as he looked over at his soldiers laid out in their battle lines on the dining room table, his books on the Mexican civil war reinstated in their rightful place on the bookshelf. On the coffee table in front of him were more soldiers ready to be painted.

Much better he repeated as he picked up his paintbrush and dipped it into the paint. I hate Rhubarb!

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Finally, we can't let Christmas Week go by without enjoying a joke or two. The first little cartoon appeared in the magazine 'The Week' this week, so is very suitable for inclusion in this week's 'Weekly Letter'. Then I have stolen yet another one from the Beeston U3A Monthly Bulletin. Enjoy:





Christmas Arrangements

You may not be altogether surprised to learn that we do not intend to produce a Weekly Letter on Friday 25th December but don't despair – there may well be just a little something for your amusement until the time comes to open the first bottle of Fizzzz -- zz. Anyway, here's wishing all our readers a very happy Christmas. We shall be back with renewed enthusiasm on New Year's Day. But, until then, remember to look after yourselves and don't get confused over bubbles – they don't all involve hard-wired corks!

John

