

# FORMING IDEAS

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## 3D PRINTING

It's early days for 3D Printing Technology otherwise known as Additive Manufacturing but there is little doubt that it will be a game changer. **Learn more on page 3.**



"Success is a few simple disciplines, practiced every day; while failure is simply a few errors in judgement, repeated every day."

- Jim Rohn

### A Waste-o-Saurus Story



**Wäs-tö-sau-rús**, n. [Waste, and Gr. sauros. a lizard.] A cute but troublesome creature that wastes time and material. The Waste-O-saurus is elusive but commonly identified through reduced profit and productivity.



### CHRISTMAS SHUTDOWN INFO PAGE 4

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### EAGLE CALLING

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NEW!



### History Mystery



Safety 1940's style on Page 2



## History Mystery

Laughable now, this image is typical of working and safety conditions in the 1940's. A single light-bulb draped with an oily rag, open flywheels and gears and wooden infeed and outfeed roller stands. Most of the nuts on the press, which sits on a wooden base, are square. The machine appears to be a horizontal press being used to straighten a fabricated steel ladder. The photo was taken at Western Bridge and Steel which later became Canron at West 1st Avenue and Manitoba Street in Vancouver.

# WASTE-O-SAURUS SIGHTINGS

**In 2010**, David Brailsford faced a tough job. No British cyclist had ever won the Tour de France, but as the new General Manager and Performance Director for Team Sky (Great Britain's professional cycling team), Brailsford was asked to change that.

His approach was simple. Brailsford believed in a concept that he referred to as the "aggregation of marginal gains." He explained it as "the 1 percent margin for improvement in everything you do." His belief was that if you improved every area related to cycling by just 1 percent, then those small gains would add up to remarkable improvement.

They started by optimizing the things you might expect: the nutrition of riders, their weekly training program, the ergonomics of the bike seat, and the weight of the tires. But Brailsford and his team didn't stop there. They searched for 1 percent improvements in tiny areas that were overlooked by almost everyone else: discovering the pillow that offered the best sleep and taking it with them to hotels, testing for the most effective type of massage gel, and teaching riders the best way to wash their hands to avoid infection. They searched for 1 percent improvements everywhere.

Brailsford believed that if they could successfully execute this strategy, then Team Sky would be in a position to win the Tour de France in five years time.

He was wrong. They won it in three years.

In 2012, Team Sky rider Sir Bradley Wiggins became the first British cyclist to win the Tour de France. That same year, Brailsford coached the British cycling team at the Olympic Games and dominated the competition by winning 70 percent of the gold medals available.

It's so easy to overestimate the importance of one defining moment and underestimate the value of making better decisions on a daily basis. Almost every habit that you have - good or bad - is the result of many small decisions over time.



*This is a portion of an article written by James Clear. To read the complete article and others written by Mr. Clear, visit his website: [www.JamesClear.com](http://www.JamesClear.com).*

## Meet Strati

In September 2014, in front of a live audience, an automobile was created using a 3D printer. It took place at the International Manufacturing Technology Show (IMTS) in Chicago this September. The vehicle is called the Strati

The 3D printer used to “print” the car was Cincinnati Incorporated’s Big Area Additive Manufacturing (BAAM) machine. It took 44 hours using a carbon fibre reinforced ABS plastic composite to print the body of the car. The entire car consists of only 40 parts.

The completed Strati was equipped with an electric motor. It didn’t break any land speed records. In fact, it only ran at 4 mph. But this isn’t about an electric car. It’s about a new form of manufacturing. Consider the possibility of ordering something; whether it’s a chair, desk or vehicle; built specifically for you, to your exact requirements, body size and shape.

Canadian Manufacturers & Exporters (CME) President Jayson Myers, says, “Additive manufacturing is one of those advanced manufacturing technologies that is likely to disrupt the way we are making things.”

We are all familiar with Subtractive Manufacturing. Machining, cutting and any other process which removes material is subtractive. In contrast, Additive Manufacturing describes the technologies that build 3D objects by adding layer-upon-layer of material, whether the material is plastic, resin, metal, concrete and even things like chocolate. It is an ideal process for prototyping and low volume production. Free of the constraints of the traditional factory, designers can produce products that were previously considered far too complex to make economically, if they could be made at all.

Forbes magazine reports that, “We are going to live in a world where anyone can create and customize, and iterate with blinding speed.” Whether that will come to pass or not, time will tell. However, there is a high probability that as fast as metal manufacturing technology has evolved over the past 20 years, we ain’t seen nothing yet.



**BREAKING NEWS: BRENCO NOW ISO  
9001:2008 CERTIFIED**



# EAGLE CALLING



*In a newly developed park in the Newton area of Surrey stands a new, bold metal sculpture. It was erected on what was once a decrepit, overgrown lot, strewn with garbage, needles and condoms. Here's the story of how it came to be.*

On April 24th, 2011, Devon Allaire-Bell and his friend Jack, were kick-

ing around a soccer ball in the Frank Hurt Secondary school yard when a group of men emerged from the adjacent lot. An altercation ensued which left Devon and Jack suffering from multiple stab wounds. Devon died of his injuries. The attackers fled back into the brush and the case to this day, remains unsolved.

The transformation from a forgotten and missused piece of land to a park was led by Devon's parents who began a clean up and development campaign. The sculpture entitled, *Eagle Calling*, was created by renowned Haida artist and friend of Brenco, Robert Davidson. It holds special significance to the family because Davidson is a friend of the Allaire-Bell's.



*Frank Hurt Park was officially opened on September 20th, 2014. Pictured here is Robert Anderson (yellow shirt) and Devon's parents to Robert's immediate right.*



## Christmas Holidays

Brenco will be closed from Thursday, December 25th until Monday, January 5th

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Fa La La La Laaaaa, La La La La. It will soon be the season to be jolly which makes us wonder... why do we need a season to be jolly? Like, why can't we be jolly all year long? We have one night when a guy in a red suit decides who's naughty and nice, a day to be in love and a day to pretend that a bunny rabbit delivers chocolate easter eggs. Is this making as much sense to you as it is us? Probably not but whatever, right? Anyway, all of us wish you a Merry Christmas and a Happy New Year. Brenco Industries Ltd is located at the North Pole, Ho Ho Ho!

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