The Doorway™

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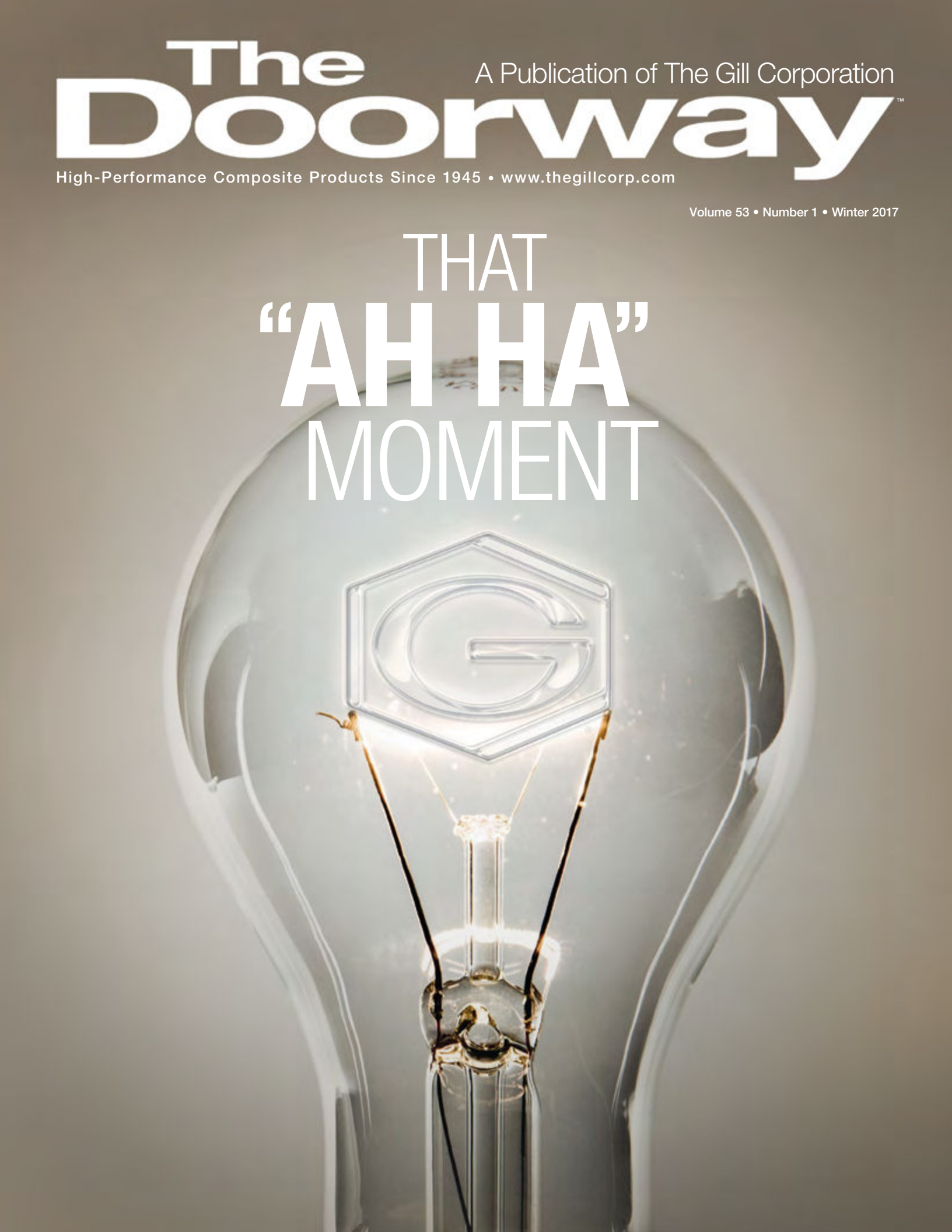
THAT "AH HA" MOMENT



Ever had an "ah ha" moment? That moment when all the right pieces fall into place, doubts disappear, and you know that something is meant to be? More often than not, it isn't a random thought that hits like a bolt of lightning, but a certainty that evolves over time – until that moment when you just know. In business, those "ah ha" moments can have far-reaching consequences that determine profit vs. loss. At The Gill Corporation, "ah ha" moments are rooted in our manufacturing DNA.

In the 1990s, the corporation went through a period of expansion. Chairman and CEO Stephen Gill oversaw a series of acquisitions designed to expand the products, services, and manufacturing capabilities of the corporation. Included in the expansion was a privately held precision machining and seat manufacturing company (Castle Industries of California) located in Ontario, California. The company offered specialized services to a niche portion of the aerospace industry. However, as the industry evolved into the next century, many of the company's core capabilities had become obsolete.

The easiest thing would've been to shutter the business, but Stephen and the shareholders saw value in both the people and their commitment to their customers. Instead, they elected to scrutinize each and every facet of the business model.

A careful evaluation of the products and services offered by Castle confirmed that their decades-long experience with machining offered a unique skill set that could complement the corporation's existing capabilities. The Gill Corporation had begun to expand its fabrication business, and realized this was an opportunity to support those efforts. However, much of the equipment was past its prime and new state-of-the-art replacements would be costly and require additional personnel and extensive training. The shareholders never balked once.

In 2015, Stephen Gill announced the decision to invest in new machining centers to manufacture titanium intercostals and fittings, in support of the B787 fabricated floor panel award. The first three 3-axis CNC machines arrived in January. Five more machines would arrive in February 2016.

In addition to the CNC machines, Castle acquired a new Liner Pallet System (LPS) and True 4-axis Horizontal CNC machines.

The LPS refers to a computerized feed system, where raw stock material – like titanium and aluminum bars – are placed on four-sided pallets. The pallets are loaded with the raw stock bars and given a correlated computerized machining program. The pallet is sent to a holding/sequencing location via a "rail system." Up to 20 pallets can be preloaded at one time. When the operator runs the CNC operation, pallets are automatically sequenced into the cutting area, then cut and returned to the operator when complete.

Other pallets are automatically loaded for machining as the operator changes out the previous parts to increase efficiency and reduce idle time. "Lights Out" manufacturing occurs when the machine is loaded, requires no attention by the operator, and can run unattended for a period of time (i.e., nights and weekends).

Much of 2015 was devoted to operator training, developing CNC programs, fixture methodology, establishing cutting tool performance parameters, dimensional inspection plans, and customer approval.

In Q4 2015, Castle began delivering its first B787 shipsets. By early 2016, the shop had achieved full-scale production, operating two ten-hour shifts/day and delivering approximately 1,000 parts per month to The Gill Corporation El Monte campus.

The shareholders could now parlay their equipment investment into new super-alloy machining business for the corporation. They recognized that Castle was equipped with state-of-the-art machinery and a skilled labor force that was poised to offer unique services to the aerospace industry, but the shareholders had to wonder: Can they sustain growth in their current facility?

Unfortunately, the answer was, "No."

The shareholders needed a solution that would leverage Castle's skilled labor, aerospace experience, and re-imagined manufacturing infrastructure with an eye towards future growth. Strangely enough, the solution was a mere stone's throw away.

Years earlier, in 2009, Stephen Gill initiated the arduous process of purchasing a large parcel of land immediately adjacent to the existing El Monte campus. In 2014, he was finally able to sign the documents and break ground for the eighth building in the Gill manufacturing complex.

The new building would offer 140,000 square feet of floor space which allowed for a complete reconfiguration of the El Monte campus.

The shipping department moved from B4 into B8: 40,000 sq. ft. with a dedicated loading dock area and two new drive-in ramps. All existing panel saws, storage racks, pallets, and the new Holzna saw were also moved from B4 into B8.

The receiving department relocated from B6 to B8 to occupy an area with a new 40° to 0° refrigeration cooler/freezer and office space (5,000–15,000 sq. ft.).

Our expanding fabrication business was relocated from B7 into B8 to occupy the remaining 60,000 sq. ft. area and operates one new and three existing CNC machines, which accommodate both existing customers and future growth.

Once the receiving department was moved from their previous location in B6, there was now an area to relocate the specialized equipment and personnel from the Ontario operation.

Another "ah ha" moment had arrived.

Here was the solution that would allow the manufacturing team in Ontario, California, to streamline operations, while providing daily access to the manufacturing and engineering expertise at the El Monte campus. Stephen Gill realized that relocating the operation and personnel would pose some serious challenges, but he never wavered.

Stephen and the shareholders made the relocation contingent on offering every Castle employee a position at the El Monte campus; a nod to how well they function as a team. Luckily, the overwhelming majority elected to accept the offer.

On January 31, 2017, all Castle personnel, manufacturing machines/equipment and operations were formally transitioned to the El Monte campus.

The Gill Corporation is legendary for its manufacture of advanced composite materials, including cargo liners, floor panels, interior panels, specialty laminates, and honeycomb core. The corporation has recently made significant inroads into the fabrication segment of the aerospace industry via B787 floorboard systems.

Integrating the Ontario personnel and upgraded manufacturing infrastructure into

The Gill campus provides another new skill set and unique expertise to our customers.

The focus of this new business is the manufacture of machined materials that include titanium, Inconel, Hastelloy, and other aerospace hard alloys. The horizontal and vertical CNC hard alloy machining centers serve a special niche in the aerospace industry. These high-torque machines, coupled with high-pressure chip blasters, will cut hard alloys with relative ease while simultaneously keeping the cutting surfaces cool, thus ensuring the ability to maintain tight tolerances.

Mated to the machining centers is the Fastems Linear 20 Transport pallet system that enables the facility to operate in a "Lights Out" environment. Fastems provides a significant competitive advantage for The Gill Corporation by lowering manufacturing costs while optimizing manufacturing capacity.

To ensure and maintain dimensional compliance, The Gill Corporation will rely on Renishaw programmable on-machine inspection, which delivers a high degree of accuracy without costly manual inspection.

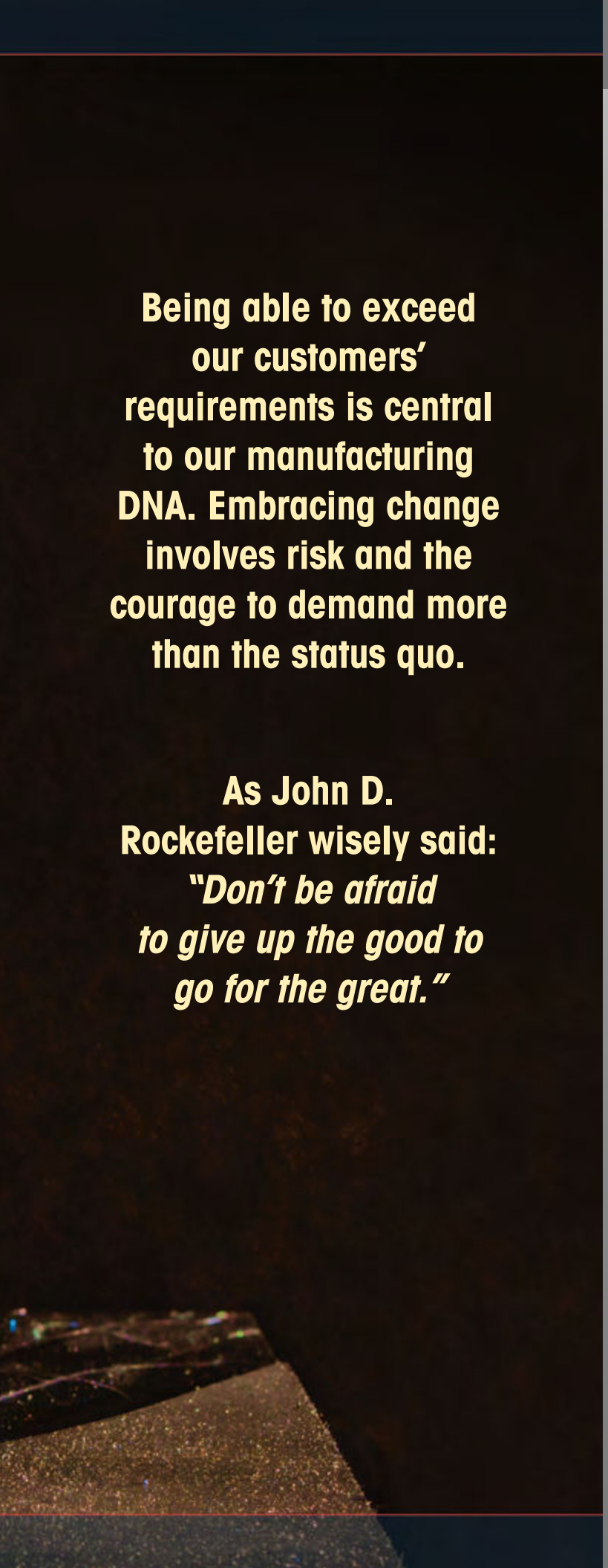
In addition, we utilize programmable DCC Coordinate measuring machines. These machines allow for lower inspection costs with a repeatable process so each part is inspected in the same manner each and every time.

For lower-volume parts, The Gill Corporation now employs portable measuring arms that provide a degree of accuracy and flexibility that surpasses conventional inspection techniques.

The assemblage of digital inspection processes and devices are fully integrated into the Gill Quality System, are an integral part of our Digital Product Definition (DPD), Model Based Definition (MBD) System, and are approved by our customers as required.

Marketing research revealed that many customers prefer to purchase assemblies that incorporate an assortment of part numbers, hardware, and a variety of specified surface treatments. As customer needs evolve, vertical integration will enable us to implement steps to add liquid penetrant inspection as our first Nadcap- and OEM-approved special process. In the future, we also anticipate the addition of a paint booth for the application of aerospace primers and top coat paints.

The Gill Corporation is well positioned to pursue these new opportunities by maximizing its machining/forming capabilities as its fabrication business grows. Providing value-added solutions will always be a priority at The Gill Corporation. In doing so, we simplify our customers’ supply chain management; a real home run in any situation.



Being able to exceed our customers' requirements is central to our manufacturing DNA. Embracing change involves risk and the courage to demand more than the status quo.

As John D. Rockefeller wisely said:
"Don't be afraid to give up the good to go for the great."

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Alcore does not sell sandwich panels. Contact The Gill Corporation for these products.

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THE FUNNY SIDE

Q: Why did the fly never land on the computer?
A: He was afraid of the world wide web.

Q: Why are "A"s like flowers?
A: Because bees come after them!

Q: What do you call a snail on a ship?
A: A snailor!

Q: What do you call a fly without wings?
A: A walk.

Q: What do you call two ants that run away to get married?
A: Ant-elopes!

Trivia

Pinocchio is Italian for "pine head."

The word "typewriter" is the longest word in the English language that can be spelled with the top letters of the keyboard.

People generally speak about 4,800 words a day.

It would take approximately 31.7 years to count off 1 billion seconds.

Honey is the only food that won't spoil.

Hippopotomonstrosesquippedaliophobia is the fear of long words.

Hydrophobia is the fear of water.

Triskaidekaphobia is fear of the number 13.

Pogonophobia is fear of beards.

Ergophobia is fear of work.

Vincent Van Gogh only sold one painting his entire life – and that was to his brother.

There were about 300 bones in your body when you were born. By the time you reach adulthood, you only have 206.

Thomas Edison, the inventor of the light bulb, was afraid of the dark.

The fastest bird is the peregrine falcon. It can fly at a speed of 168–217 miles per hour.

Some frogs can pull their eyes into their throat and help push food down.

Elephants purr like cats do, as a means of communication.

Honeybees have hair on their eyes.

The only bird that can fly backwards is the hummingbird.

Flamingos can only eat with their heads upside down.

A gecko uses its tongue to clean its eyeballs!