राष्ट्रदुत

#NATURE'S BREATH

The Picture Of The Song

The stunning moment when a Red-Winged Blackbird's song becomes visible!





n a crisp, chilly morning in early 2019, photographer Katrin Swoboda arrived at Huntley Meadows Park in Alexandria with a known for its rich wetlands bring. The air was crisp, carnature awakening beneath a pale winter sky. Swoboda settled into her surroundings. camera in hand, ready to patiently observe the behav our of the red-winged black-

birds that frequented the area. These birds, with their striking black feathers and vivid red and yellow wing patches, are renowned for their distinctive territorial calls, which echo loudly across marshes and meadows during the breeding season. As the sun began to rise and the temperature hovered just above freezing, the blackbirds' songs filled the cold air with sharp, melodic calls.

Swoboda focused on a particularly vibrant male redwinged blackbird perched on a reed stalk. As it opened its beak to sing, something extraordinary happened. In the freezing morning air, delicate rings of condensation formed as the bird exhaled. These small vapor 'smoke rings' spiraled out from its open mouth, swirling gracefully in the air like ephemeral whispers made visible. The phenomenon occurs because

the frigid air, causing moisture to condense and momentarily freeze into visible rings. Capturing this moment required impeccable timing.

the bird's warm breath meets

patience, and a deep understanding of the bird's behavior. Swoboda's photograph immortalized this fleeting event, a harmonious blend of sound and sight, warmth and cold, life and atmosphere. The image not only showcased the vibrant bird in exquisite detail but also revealed an almost magical element: the visual imprint of its song etched briefly in the icy air. The haunting ethereal beauty of the photograph quickly caught the attention of nature enthusiasts and pro

fessionals alike. It was awarded the top honor in the 2019 Photography Awards, a prestigious recogni tion celebrating outstanding wildlife photography. The award highlighted not only the technical skill behind the shot but also the intimate connection between the photogra-

pher and the natural world. Swoboda's image serves as a poignant reminder of the quiet, often overlooked wonders surrounding us. It encourages viewers to pause. observe, and appreciate the subtle poetry that nature offers daily. In a world mov moments like these celebrate the beauty that patience and a keen eye can reveal, transforming an ordinary birdsong into a breathtaking visual symphony.





In 1891, the American Newspaper Publishers Association (ANPA) organized a typesetting contest to evaluate the

capabilities of various composing machines. Paige was invited to participate, but his machine was still not ready. The results of the contest ended up favouring linecasting machines as the most suitable 'for ordinary newspaper work.' Eventually, after much persuasion, the Chicago Herald agreed to test the Paige Compositor for sixty days in 1894. During the trial, problems quickly emerged, type began to break, and

breakdowns became more frequent and time-consuming. With over 18,000 parts, the machine was so complex that only Paige himself knew how to repair it. It soon became clear that the Compositor was too delicate and intricate for the demands of the printing trade, especially in fast-paced newspaper settings, where durability and ease of maintenance were critical

KAUSHIK PATOWARY

in public demand for daily news.

To keep pace, newspapers had to

print faster and in greater volume,

placing immense pressure on com-

positors who still set type by hand.

process was laborious and time-

consuming. A compositor assem-

bled each page character by char-

acter, using small metal letters

known as sorts. These were stored

tray, or type case, in front of the

the compositor would pick up

each character in sequence and

place it into a composing stick,

usually held in the left hand. Once

a line of text was complete, it was

justified by adjusting the spacing

between words so that both the left

and right margins aligned evenly.

bled and locked together in a

frame to form a page or form. This

form was placed in a press, inked,

and pressed onto paper to produce

a printed impression. After print

ing, the type had to be cleaned and

carefully redistributed by hand

into the correct compartments for

Several such lines were assem-

in individual compartments on a

compositor. Working from copy,

The traditional hand-setting

he late 19th century

saw a massive boom

in newspaper pub

lishing, especially in

cities like New York,

Chicago, and London.

Rising literacy rates,

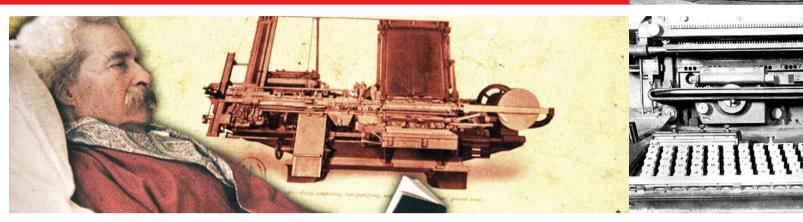
rapid urbanization.

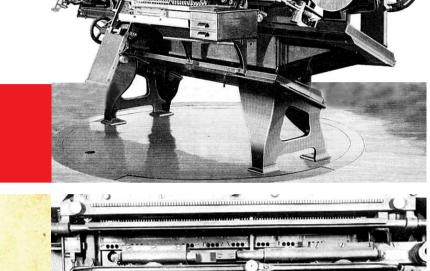
and cheaper paper all

contributed to a surge

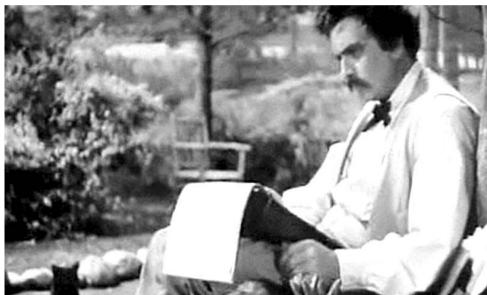


Mark Twain





#PRINTING



1872. This first typesetter served

as a simple beginning for the mas-

the two successive decades. In its

final form, the Paige Compositor

fully automated the process of

typesetting, closely mimicking the

a keyboard, much like a type-

a key, a complex mechanical sys-

tem retrieved the corresponding

piece of metal type from a maga-

vidual characters. The selected

zine containing thousands of indi-

writer. When the operator pressed

The machine was operated by

actions of a human typesetter.

A scene from the movie 'The Adventures of Mark Twain.'

could no longer keep up with the printing needs of the modern world, and that created fertile ground for technological experimentation. Among the many ambitious attempts that emerged in this era was the Paige Compositor, a machine of extraordinary complexity designed to replace human typesetters alto-

The machine's inventor was a New Yorker named James W. Manual typesetting was not only laborious, it was slow, expen-Paige, who, while working in the sive and required skilled workers. oil fields, conceived the idea of a As the demand for newspapers mechanical typesetter. The first and other printed material grew, machine was built in Rochester the slow pace of hand-setting and a patent was applied for in

type was then dropped into a composing channel, one character at a time, to form a line of text. Once a full line was assembled the machine automatically justified it by adjusting the spacing between words to ensure proper lignment on the printed page. Justification required subtle and precise mechanical movements to distribute space evenly, something human typesetters did intuitively. but which demanded sophisticated engineering in a machine. This automatic justifier was the invention of Charles E. Davis, a mechanical engineer who also oversaw the construction of the

Paige Compositor. One of the machine's most ngenious features was its ability to return the used type to the correct compartments in the magazine after printing, automating a



Compositor was ready, it had already been overtaken by a competing invention, the Linotype. Unlike the Paige machine, which used mechanical arms to assemble individual pieces of type into words and sentences, the Linotype cast entire lines of type from molten metal, making it faster, simpler, and more practical.

task that was typically done by

Around 1880, Mark Twain met James Paige and became personally acquainted with him. Paige was a brilliant and persuasive inventor who impressed Twain with the machine's complexity and potential. Twain, who had a well-documented fascination with modern inventions, was captivated by the Compositor's elegance, speed, and promise. In Paige's machine. he saw a golden opportunity. He envisioned it being adopted by every major newspaper and printing house, rendering manual typesetting obsolete, just as the cotton gin had revolutionized textile manu-

to back impractical inventions (including a steam generator, a

steam pulley and marine telegrawas finally released in 1889, it phy), poured \$300,000 of his own made little impact on the publishequivalent to \$8-10 million today.

ing world. At the time, newspaper

tions were still evaluating the pros

and cons of mechanical typeset-

ting. While the Paige machine

others noted that it could only set

one size of type, a significant limi-

tation in a dynamic printing envi-

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Newspaper

Publishers

Linotype, the machine that replaced the page composer.

With Twain and a few other investors footing the bill, Paige set about improving the machine. A relentless perfectionist. Paige was never satisfied with merely adequate performance and constantly tinkered with the design. On one occasion, Twain invited a millionaire and potential investor to view the machine in Paige's workshop, only to find it disassembled. Paige had taken it apart to install an air blast. This obsessive need to refine and improve the machine delayed its completion by four years.

By the time the Paige Compositor was ready, it had already been overtaken by a competing invention, the Linotype. Unlike the Paige machine, which used mechanical arms to assemble individual pieces of type into words and sentences, the Linotype cast entire lines of type from molten metal, making it faster, simpler, and more practical for commercial use.

Twain was aware of these developments but he still believed Paige's machine was superior. He continued to fund its development and wrote extensively about its virtues, touting the enormous savings that publishers would enjoy

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contest ended up favouring linecasting machines as the most suitable 'for ordinary newspaper Eventually, after much persua-

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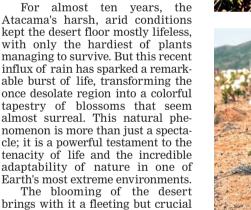
With the failure of the machine, the company dissolved naving sunk close to \$2 million of vestor's money over a period of nore than fifteen years. James aige spent much of his later life n obscurity. By the time of his eath in 1917, he was impoverished and living in the poorhouse in Oak Park.

Mark Twain lost a fortune in the Paige debacle, eventually forcing him to declare bankruptcy. He then embarked on extensive lecture tours and writing projects, which allowed him to repay his creditors, despite having no legal

obligation to do so. Despite decades of work and heavy investment, only two machines were ever built. One is now on display at the Mark Twain House in Hartford, Connecticut The other was donated to Cornell University, but was later scrapped during World War II.

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he Atacama Desert in

Chile, often recognized as

the driest place on Earth,

has recently undergone a

stunning and rare trans-

formation. After nearly a

barren sands, the desert has erupted into a breathtaking display of

vibrant colors, painting the landscape with vivid shades of violet

and white. This remarkable event,

known locally as the 'Desierto

Florido' or 'Blooming Desert,' is the

result of unusual and rare rainfall

that has awakened resilient wildflowers such as the iconic Pata de

decade of parched and

boost in biodiversity. For a short period, insects, birds, and other wildlife arrive to take advantage of the sudden abundance of nectar and vegetation. This influx temporarily revitalizes the ecosystem, creating a burst of biological activity that supports species that might otherwise struggle in this unforgiving climate. Scientists are particularly fasci-

nated by the Desierto Florido, as it provides unique opportunities to





#THE ATACAMA

'Blooming Desert'

The blooming of the desert brings with it a

fleeting but crucial boost in biodiversity.

study how ecosystems respond to climatic changes, especially in arid

such rare weather patterns influ ence the growth cycles of desert flora and the survival strategies of desert-dwelling organisms. Meanwhile, tourists and nature enthusiasts are flocking to the Atacama Desert from around the world, eager to witness this every decade or so. The spectacle not

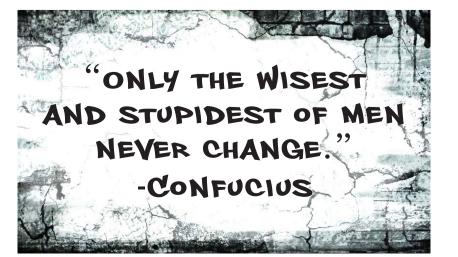
opportunities but also serves as a poignant reminder of nature's resilience and the delicate balance of life in extreme environments. In conclusion, the blooming of the Atacama Desert is a once-in-a-

only offers stunning photographic

decade miracle emerging from Earth's harshest ecosystem. It encapsulates the incredible power of even the smallest climatic shifts to rejuvenate life, inspiring awe and hope for the future of our planet's most vulnerable landscapes.



THE WALL



A scene from the movie 'The Adventures of Mark Twain,' from 1944.

BABY BLUES



By Rick Kirkman & Jerry Scott



ZITS

By Jerry Scott & Jim Borgman