

IN BRIEF

**Prince Charles is out of isolation: royal officials**

LONDON
Prince Charles, the eldest son and heir of Queen Elizabeth II, is no longer in quarantine after he recovered from mild coronavirus symptoms, his office said on Monday. The 71-year-old had tested positive last Tuesday. AFP

Teen charged after 'coughing' on groceries

HOUSTON
A 14-year-old boy was charged over a prank in which he coughed on produce at a grocery store in northwest Harris County in the U.S. amid the coronavirus scare, officials said on Sunday. The local sheriff said that the teen was charged with "tampering with consumer products" as he had done it intentionally for a prank. PTI

'Bag valve masks' pitched as alternatives to ventilators

IIT-Hyderabad scientists say the low-cost devices need to be manufactured on a war footing under the monitoring of a government task force

AVADHANI R
SANGAREDDY

B.S. Murty, Director of the Indian Institute of Technology - Hyderabad, has urged the government to consider the use of 'bag valve masks' as an alternative to meet any surge in demand for ventilators, in the wake of the COVID-19 pandemic.

Conventional ventilators are generally expensive, hard to produce and not portable, Prof. Murty said. He, along with V. Eswaran, Department of Mechanical and Aerospace Engineering, IIT-H, explained that 'bag valve masks' were small devices used to deliver breathing support in emergency situations. They are also known as "ambu bags".

The scientists said that 'bag valve masks' are currently hand-powered and therefore not suitable for

continuous use as a ventilator. But, they posited, this could easily be remedied by designing similar devices powered by an electrical source, which could be a car battery or conventional power supply. The devices would be made portable, and therefore easy to use in villages and other areas without

COVID-19

power supply and could be manufactured in bulk quite inexpensively.

"Our estimate is that it can be made for less than ₹5,000, or one-hundredth of the cost of a conventional machine. The cost is so low that it can be considered a single-use device that will be given over to a single patient, and never used again. It

needs to be manufactured, however, on an industrial scale, in millions, within a short time of a few months. There have been several designs proposed within India itself, with IIT-H having at least one proposed design," Prof. Murty said.



Cheap and portable: Sample of a bag valve mask.

The scientists said the idea was not new. In the past few weeks, many countries have

come up with the idea of manufacturing low-cost ventilators and have even initiated competitions where the winning design would be declared open-source. Several designs are already available for 3-D printing.

The scientists added a note of caution that some designs were untested and uncertified. They proposed that

How much do ventilators cost?

SPECIAL CORRESPONDENT
SANGAREDDY

A ventilator is a device designed to force breathable air into the lungs of patients who are unable to breathe for themselves.

Modern ventilators are expensive and sophisticated devices, which are generally found only in the ICUs

(intensive care units) of large hospitals.

The most sophisticated computer-controlled ventilators cost around ₹40 lakh while more modest ones cost around ₹15 lakh (made abroad) and Indian-made ventilators cost around ₹6 lakh each. The Indian industry has a

manufacturing capacity of approximately 6,000 units per month, but even these devices use a lot of foreign-made parts whose availability is uncertain at a time when every country is focussed on its own ventilator production, scientists from IIT - Hyderabad said.

A novel air purifier to disinfect hospitals in COVID-19 fight

It helps check infections, clean air in a closed environment

SHOUMOJIT BANERJEE
PUNE

The Department of Science and Technology (DST) on Monday said that an air purifying technology developed by an incubatee company of the Pune-based Science and Technology Park (STP or Scitech Park) could offer an effective solution to the country's fight against the COVID-19 pandemic by reducing the viral load in the infected areas.

The DST, in a release on Monday, said that it has released ₹1 crore to manufacture and scale up production of the new air purifier, named 'Scitech Airon', and



The Scitech Airon purifier

that 1,000 units would soon be ready for installation in various hospitals across Maharashtra.

The technology has been developed under the 'Nidhi

Prayas' programme initiated by the DST. Another city-based company, J-Clean Weather Tech, is manufacturing the product.

"The negative ion generator titled 'Scitech Airon' helps to control the virus, bacteria, and other fungal infections in a closed environment..." said the DST release.

According to Dr. Rajendra Jagdale, Director General of STP, a single hour of operation of the ion generator machine, which costs around ₹40,000 including GST, has the potential to reduce viral load within a room by 99.7% depending upon its size.

Mizos stranded on bridge to Myanmar safe now

The group, including 11 children, had gone to the neighbouring country to visit relatives

RAHUL KARMAKAR
GUWAHATI

Stranded in no man's land on a Bailey bridge between India and Myanmar for two nights, 28 inhabitants of Mizoram were brought back on Sunday night and quarantined.

The 50-foot bridge on the Tiau river connects Zokhawthar in Mizoram's Champhai district and Rih in Myanmar.

In August 2018, India opened an immigration checkpoint at Zokhawthar, the State's second such facility along the border with Myanmar after Zorinpui in Lawngtlai district.

The 28 Mizos, including 11 children, had gone to Myanmar to visit relatives much before the border was sealed



Long ordeal: Families stranded on the Bailey bridge to Myanmar. *SPECIAL ARRANGEMENT

due to the COVID-19 pandemic and the subsequent nationwide lockdown.

"Until the sealing, both countries were allowing border residents to travel to

each other's territory up to 16 km due because of a free movement agreement.

These Mizo villagers were not aware of the sealing and when they arrived at the bor-

der, the Myanmar sentries put them on the bridge and locked their end," said T.J. Lalnunluanga, Mizoram's Minister of State for Transport, Law, Parliamentary

Affairs Department and Environment, Forest and Climate Change. "But the Assam Rifles personnel manning the border locked the Indian end of the gate too, forcing the men, women and children to spend two nights on the bridge with no food, shelter and toilet," Mr. Lalnunluanga told *The Hindu* from Aizawl.

Chief Minister Zoramthanga and Home Minister Lalchamliana intervened and let the Ministry of Home Affairs know "bringing the Mizo villagers was as important as flying resourceful Indians in from foreign lands".

The stranded group was released at 6 p.m. on Sunday and taken to a quarantine facility.

1971 war icon Chandan Singh is dead

The Air Vice Marshal was awarded a Maha Vir Chakra and a Vir Chakra

DINAKAR PERI
NEW DELHI

Air Vice Marshal (AVM) Chandan Singh (retired), 95, who played a pivotal role in transport operations during the 1962 war between India and China, and who was instrumental in helicopter operations during the 1971 Liberation War of Bangladesh passed away on Sunday. He was decorated with a Maha Vir Chakra and a Vir Chakra.

"The man who flew us across the Meghna river in 1971 passed away at 12:00 hrs on Sunday at Jodhpur. With his passing away an icon to generations of officers has also departed, the like of whom only the fortunate can get to meet and know," said Major Chandrakant Singh, VrC, a decorated veteran of the 1971 war who knew AVM Singh very well and is the author of his upcoming biography.

"How I wish he could have been there to see the release of his biography *A Cavalier in the Sky*, which has been scheduled for release in May," Maj. Singh said.

Vital supplies

AVM Singh was awarded the Vir Chakra for dropping vital supplies in the Chip Chap area in Ladakh during the 1962 war despite his aircraft being hit 19 times by enemy ground fire.

He also dropped AMX-13 tanks at Chushul in eastern Ladakh despite they being heavier than the carrying capacity of the AN-12 aircraft which slowed the advance of Chinese troops.

He was awarded Maha Vir Chakra for his role in the 1971 war when he was a Group Captain commanding an Air Force Station in the East.

He played a key role in helicopter operations to fer-



Air Vice Marshal Chandan Singh (retd.)

ry men and material, including over the pivotal Meghna river crossing which allowed the Indian Army to move swiftly to Dhaka.

"The officer who was the brains behind all the helicopter and transport operations in the 1971 war in Bangladesh, including setting up the fledgling Bangladesh Air Force with one armed Chetak and an Otter. And the he-

li-lifts! Most important was jointmanship with Lt. Gen. Sagat Singh. Rest in Peace," AVM Manmohan Bahadur (retired), Additional Director, Centre for Air Power Studies, said on Twitter.

Aviation research

"After the 1962 war, AVM Singh helped raise the Aviation Research Centre (ARC) at Charbatia in Odisha from where secret missions were flown to Tibet," he stated.

AVM Singh was born on December 03, 1925 in Baga was near Jodhpur and was commissioned as 2nd Lieutenant in the Jodhpur Lancers at the age of 16.

He fought in the Second World War with his regiment in Iraq, Persia, Egypt and Palestine and towards the end of the war, on the advice of Maharaja Umed Singh, he moved to the Royal Indian Air Force.

Van Gogh painting stolen in overnight raid

Thieves smashed a glass door to get into the museum in the Netherlands

ASSOCIATED PRESS
THE HAGUE

A painting by Dutch master Vincent van Gogh was stolen in an overnight smash-and-grab raid on a museum that was closed to prevent the spread of the coronavirus, police and the museum said on Monday.

The painting has an estimated value of between €1 million to €6 million.

The Singer Laren Museum, based at Laren in the Netherlands, said that *The Parsonage Garden at Nuenen in Spring 1884* by the Dutch master was stolen in the early hours of Monday.

The museum's general director Evert van Os said the institution that houses the collection of American



Missing art: Vincent van Gogh's *Parsonage Garden at Nuenen in Spring*. *AFP/GRONINGER MUSEUM/MARTEN DE LEEUW

couple William and Anna Singer is "angry, shocked, sad" at the theft of the painting. The value of the work, which was on loan from the Groninger Museum in the northern Dutch city of Groningen, was not immediately known. Police are investigating the theft.

"I'm shocked and

unbelievably annoyed that this has happened," said Singer Laren museum director Jan Rudolph de Lorm.

"It is very bad for the Groninger Museum, it is very bad for the Singer, but it is terrible for us all because art exists to be seen and shared by us, the

community, to enjoy to draw inspiration from and to draw comfort from, especially in these difficult times."

Police said in a statement that the thief or thieves smashed a glass door to get into the museum. That set off an alarm that sent officers rushing to the museum but by the time they got there the painting and whoever stole it was gone.

It is not the first high profile theft from the museum. In 2007, thieves stole seven works from its sculpture garden, including a bronze cast of *The Thinker* by Auguste Rodin. The famous sculpture was recovered a few days later, missing a leg.

CELEBRATING THE CHAMPS!

A BIG SHOUT OUT FOR THE REGIONAL WINNERS OF THE STEP ENGLISH OLYMPIAD 2019

THE HINDU STEP ENGLISH OLYMPIAD

Grade	Rank	Name	School	Location
3	Winner	Rishabh Burman	Shiv Nadar School	Faridabad
	1 st Runner up	Arnav Modi	Shiv Nadar School	Faridabad
	2 nd Runner up	Samidha Bhatia	Shiv Nadar School	Faridabad
4	Winner	Anjali Khartik	Gurukul Global School	Chandigarh
	1 st Runner up	Kavin Jindal	The Gurukul	Panchkula
	2 nd Runner up	Debangshi Dutta	Queen's Valley School	New Delhi
5	Winner	Sana Bose	Shiv Nadar School	Faridabad
	1 st Runner up	Nishka	Shiv Nadar School	Faridabad
	2 nd Runner up	Apoorva Singh	Fr. Agnel School	Gautam Buddha Nagar
6	Winner	Samaira G Singh	Sacred Heart Convent International School	Ludhiana
	1 st Runner up	Arjun Singh Kwatra	Sacred Heart Convent School	Ludhiana
	2 nd Runner up	Siya Saggi	Little Flower Convent School	Panchkula
7	Winner	Ananya Sinha	Shiv Nadar School	Gautam Buddha Nagar
	1 st Runner up	Rayirth Kundu	Shiv Nadar School	Faridabad
	2 nd Runner up	Agastya	Shiv Nadar School	Faridabad
8	Winner	Siddharth Shiv Kumar	Shiv Nadar School	Gautam Buddha Nagar
	1 st Runner up	Tvisha Raj	Shiv Nadar School	Gautam Buddha Nagar
	2 nd Runner up	Mrigank Bhatnagar	Fr. Agnel School	Gautam Buddha Nagar
9	Winner	Ayushi Aggarwal	Bal Bharati Public School	New Delhi
	1 st Runner up	Disha Pant	Shiv Nadar School	Gautam Buddha Nagar
	2 nd Runner up	Arvik Anand	Shiv Nadar School	Faridabad
10	Winner	Radhika Suresh	G D Goenka Signature School	Gurgaon
	1 st Runner up	Madhav Gupta	The Gurukul	Panchkula
	2 nd Runner up	Priyanshu Biswal	Pragyan School	Gautam Buddha Nagar

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