

It's cleanup time

BY CURT HARLER

Will the motors of future brushes and mowers be powered by zinc and air?

It's not as far-fetched as you might think.

Briggs & Stratton, Milwaukee, WI, is working with a Carlsbad, CA, firm called Metallic Power (MP) to develop power systems based on zinc/air fuel cells.

While they require less power, cell phones using zinc/air batteries are commonplace. Some power backup systems for personal computers also use zinc/air. In fact, most applications between one and 10 kilowatts are candidates for zinc/air.

The zinc/air system is a completely closed-loop system with nothing to add, nothing to discard, and nothing wasted, the companies say. The cell is safe and three times as energy efficient as gasoline. Californi-

ans will be happy to hear that the system reuses the zinc over and over, is quiet and completely zero emission — so CARB standards are no hassle. "It can be used indoors," says Jeff Colborn, CEO of MP.

The demo unit MP delivered last year fulfilled Briggs & Stratton's test requirements. The companies say they hope to work on prototype projects in the future.

The system consists of a zinc-recycling unit as well as zinc/air fuel cells. Zinc pellets one millimeter in diameter combine with oxygen from the air in the presence of an electrolyte, forming zinc oxide — the same stuff used in skin creams and sun block.

The recycling unit uses wall electricity to convert the zinc oxide back to fresh zinc, which is then recombined with the electrolyte to be reused.

The companies figure the cost of zinc/air to be comparable to gas-powered units.



John Deere's rotary broom fits all 1400 Series front mowers.

ARIENS

800/678-5443

BRILLION, WI

www.ariens.com

- 936 power brush designed to brush away light snow dustings, sand, other debris
 - 3-ft. wide flexible bristles conform to surface
 - 9-hp OHV Tecumseh Snow King engine, differential lock-out wheels
 - Pivoting brush head sweeps
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ATI

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www.get-attached.com

- Bradco bucket brooms from

ATI attach to skid-steers

- Come in 72- and 84-in. widths
 - Hold 17 to 19.9 cu. ft. of debris
 - Detach with simple pins
 - Optional 25-gal. water kit
- Circle #276**

DEERE

800/537-8233

RESEARCH TRIANGLE PARK, NC

www.deere.com

- Deere 60 rotary broom fits all 1400 Series front mowers
- 32 alternating wafers of polypropylene and steel bristles provide flicking action for cleaning
- 60-in. working width

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- Mechanical drive, five-way angling
 - Side-shield for sprocket and chain drive holds front Quick-Tatch stand
- Circle #277

ECHO
847/540-8400
 LAKE ZURICH, IL
www.echo-usa.com



- ES-2400 Shred 'N' Vac reduces debris volume by 12:1
 - 23.6cc engine
 - Picks up twigs and pine needles and turns them into mulch
 - Converts easily to hand-held blower
 - Weighs just nine lbs.
- Circle #278

EXCEL
800/627-9378
 HESSTON, KS
www.excelhustler.com

- Front-mounted Sweepster power sweepers
- 60-in. sweeping width
- Mechanical or hydraulic drive
- 30-degree angle standard, hydraulic angling available

Circle #279

GLENMAC
800/437-9779
 JAMESTOWN, ND
www.glenmac.com

- Harley Power Box Rake uses unique tooth roller
- Ideal for landscaping, trench restoration, sports fields
- 48-, 72- and 90-in. roller width models for skid steers
- 48- and 66-in. widths for tractors
- Handles rocks down to 1/2 in.

Circle #280

GRASSHOPPER
620/345-8621
 MOUNDRIDGE, KS
www.grasshoppermower.com

- Debris blower produces 9,500 cfm at 150 mph for high-volume cleanup
- PTO drive is quieter than most



■ Easy mount on 700/900 series zero-turn mowers

Circle #281

HUSQVARNA
800/438-7297
 CHARLOTTE, NC
www.husqvarna.com

- High-speed sweeper cleans 32-in. swath

Don't bristle over sweepers

On the job, the question is not "paper or plastic?" Rather, it's whether bristles of nylon, rubber, or steel do the best job for removing debris.

David Vick, general manager of sales at RedMax, recommends using a nylon brush for cleaning grass clippings, wood chips, sawdust, mulch or other debris from sidewalks.

Rubber paddles work better to clean debris from new construction sites or for removing light snow from walks or driveways. Likewise, the rubber version should be better for cleaning up aeration plugs or smoothing sand traps.

Some manufacturers are moving from steel bristles to polypropylene bristle sets. "We have used steel bristles but found them to wear and take a set at a much faster rate than the poly," says Dwayne Shaufler of Sno-Way. He notes the poly strips can be rotated periodically from front to back for even longer life.

Keep in mind that bristle brushes are more gentle on new seedings. If the job involves rock picking or heavy debris, however, go with steel.

- Attaches with simple pin hitch
- Works with any riding mower

Circle #282

LITTLE WONDER
877/596-6337
 SOUTHAMPTON, PA
www.little-wonder.com

- High-output blower has 10-in. diameter steel-hubbed pneumatic wheels
- Three models feature Briggs Intek engines (6, 8, 10 hp)
- Ergonomically-designed handle

Circle #283

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 PLANO, TX
www.maruyama-us.com

- Backpack blower has 59.2cc Kawasaki engine
- Weighs only 21.5 lbs. including tubes
- 700 cfm maximum air volume

Circle #284

PATRIOT PRODUCTS
800/798-2447
 PEWAUKEE, WI
www.patriot-products-inc.com

- Chipper-shredder-vacs, chipper-blower-vacs reduce yard waste volume 20-to-1
- Lightweight, compact
- Honda power, low oil shut-down, overhead valve, semi-pneumatic tires

Circle #285

REDEXIM CHARTERHOUSE
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 PITTSTON TOWNSHIP, PA
www.redexim.com

- Turf Tidy sweeps, dethatches, flail mows
- 2002 version allows quick-switch by handy, forward-facing access panel
- Turbo fan forces debris into three-cu. yd. container

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■ Fits most tractors

Circle #286

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Circle 128

- Broomer uses specially designed polypropylene bristles
 - Made of heavy gauge steel with polyester powder coat finish
 - Simple slide in/out to replace bristles
- Circle #287

REDMAX, KOMATSU ZENOAH

800/291-8251

NORCROSS, GA

www.redmax.com

- Power sweeper engines meet CARB II and EPA standards
- Two models have 25.4cc strato-charged two-cycle engines



- RMNBZ2500 has 21-in. nylon brush; RMSZ2500 has 21-in. rubber paddlewheel
 - Pickup is interchangeable between units
- Circle #288

SHINDAIWA

503/692-3070

TUALATIN, OR

www.shindaiwa.com

- PB 230 and heavier duty PB 270 PowerBroom models
 - 2-cycle engine; chrome-plated cylinder
 - Belts & flexible fins made of Alcryn rubber
 - Nylon brush accessory
- Circle #289

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PARDEEVILLE, WI

- Terra pickup sweeper features 20-cu. ft. hopper
 - Sweeps 1.5 to 3 acres per hour
 - Powered by 5-hp Briggs & Stratton
 - Easy unloading; rake pulls material out front end
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