

INTRODUCTION

(A) THE GOLDBERG VARIATIONS

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first became aware of Rube Goldberg in two very different, almost opposite, ways—experiences that still mark, I think, the two far-removed but robustly planted poles of his reputation. My introduction was Mouse Trap, the Goldberg-inspired board game from Ideal that a friend who lived across a West Philadelphia street kept, enviably, in the closet in his room. (My own self-consciously creative parents preferred, or prescribed, Creative Playthings; the Gopnik playroom was long on oddly shaped wooden objects that fit together, creatively, with other oddly shaped wooden objects, though these toys had so many sharp wooden edges that they could have served as tank obstacles on the Eastern Front.) In sad truth, I feigned more friendship than I actually felt for this now-anonymous tyke, just to get him to play the Goldberg-ish game with me. In Mouse Trap, the players built a machine that, when suddenly unleashed—with cranks releasing and seesaws levering and divers leaping, all in order to drop a bell upon two plastic mice at the other end—actually *worked*. What looked on the game box to be an improbable invention was a plausible one.

Though Goldberg, notoriously, did not share in the credit or royalties with Ideal (according to his family, a one-time sum did eventually change hands after frowning lawyers were called in), its origins in his imagination were as apparent to my friend's parents as it was to my friend; they called it, simply, “the Rube Goldberg game.” One inert element engaged another mechanical element, and then something improbable happened. The mixture of the tactile, mechanical necessity of the invention and the comic fantasy of its parts (that diver, those mice) was what stirred me. (When I began a family, I bought a later, largely unchanged, version of Mouse Trap for my own video- and digital-age children, who were both amused and, in a way, puzzled.)

My second introduction to Goldberg's imagination lay in the appearance, a few years later, when I was beginning to feel my own aesthetic oats, of a Professor Butts invention drawing (or was it two?) in K. G. Pontus Hultén's epoch-marking *The Machine: As Seen at the End of the Mechanical Age* exhibition at New York's Museum of Modern Art in 1968. Hultén pointed out, in the metal-bound catalog for the show, how Goldberg's view of the machine was as an elaborate, self-regarding artifact, one whose purpose—as

when the absentminded professor has to carry around a massive, intricate framework in order to remind himself to mail a letter—is, as often as not, to add complexity to life despite its promise to simplify it. For Pontus Hultén, this put Goldberg's art in touch with the “machine aesthetic” of modern artists such as Marcel Duchamp and those of Dadaism. This surely unconscious, or, at any rate, unintended contact with Dadaism and surrealism and their darker, mordant view of the modern machine—their love of the mock-machine, the machine that looks like a machine and has the dark glamour of a machine but accomplishes nothing—brought Goldberg into a larger orbit of modern sensibility, of which Duchamp, again, remains the master. (Though in both cases it ought really to be called the Mock-Machine aesthetic.) Here, as that show revealed, is where Goldberg unpretentiously, but with the poetic intuition common to all great cartoonists, touched hands with the inventor of anti-art. Goldberg's machines, too, were parody machines, meant to mock the elaborate world of machinery even as they delighted in elaborating logic and extending their possibilities.

These two very different pillars mark the edges of



Christmas Greetings from all our little boobs - by Rube Goldberg

Goldbergian experience. On the one hand, his work delights children, and always will, with the excess and overcharge of his inventions—the simple thing done with absurd yet plausible complexity. On the other, there seems, to adult eyes, to be in his work some fatal, almost unconscious, commentary on the madness of science and the insanity of modern invention. This second, more highbrow reading of Goldberg is not one that he might have encouraged or accepted—to trust his granddaughter’s lovely reminiscence of a crisp, driven, practical-minded artist, he doubtless would have laughed, or shaken his head in disbelief, if asked how his work related to Duchamp’s machine aesthetic, or to Dada—and yet every mark an artist makes takes place in a moment of time, and within a common frame of meaning. Part of the ongoing Goldbergian fascination we feel—the continuing power of his drawings long after all the newspapers he ornamented have folded—lies in something more than our simple delight in his inventiveness.

Like all good satire, Goldberg’s drawings begin in the real. Leafing through patent drawings from the first two decades of the twentieth century, the moment when Goldberg’s style is coming together, one is struck, over and over again, by how many actual, serious patent drawings look like Rube Goldberg’s. And, indeed, his habit of lovingly, carefully, detailing each step in the mechanical process by a letter (A>B>C>D), comes right out of the exigencies of the patent office.

Yet much of the additional charm of Goldberg’s machines, more than might be apparent on initial inspection, rises from their observational precision, their period detail, their lovely inventory of a now-vanished time—one that saw itself as perfectly modern but now looks, inevitably, touchingly *past*. It isn’t just that one sprocket turns another in his drawings, but that a pet porcupine’s risen quills eventually engage the attention of a lovesick alley cat, that midgets who get hot under the collar

at being called “short guys” lend energy to the entirety of the mechanism. There is a whole little urban world absorbed into these machines—our optimistic grandfathers in hats and vests and mustaches looking for their chance while gravy spots gather on their vests. A whole lower-middle-class world of urban America between the two wars gets caught here, unconsciously, and put to work. There are big parcels to send through the post, and a desk to doze at in the empty office, with windows always open, as they usually were in that pre-air conditioned era.

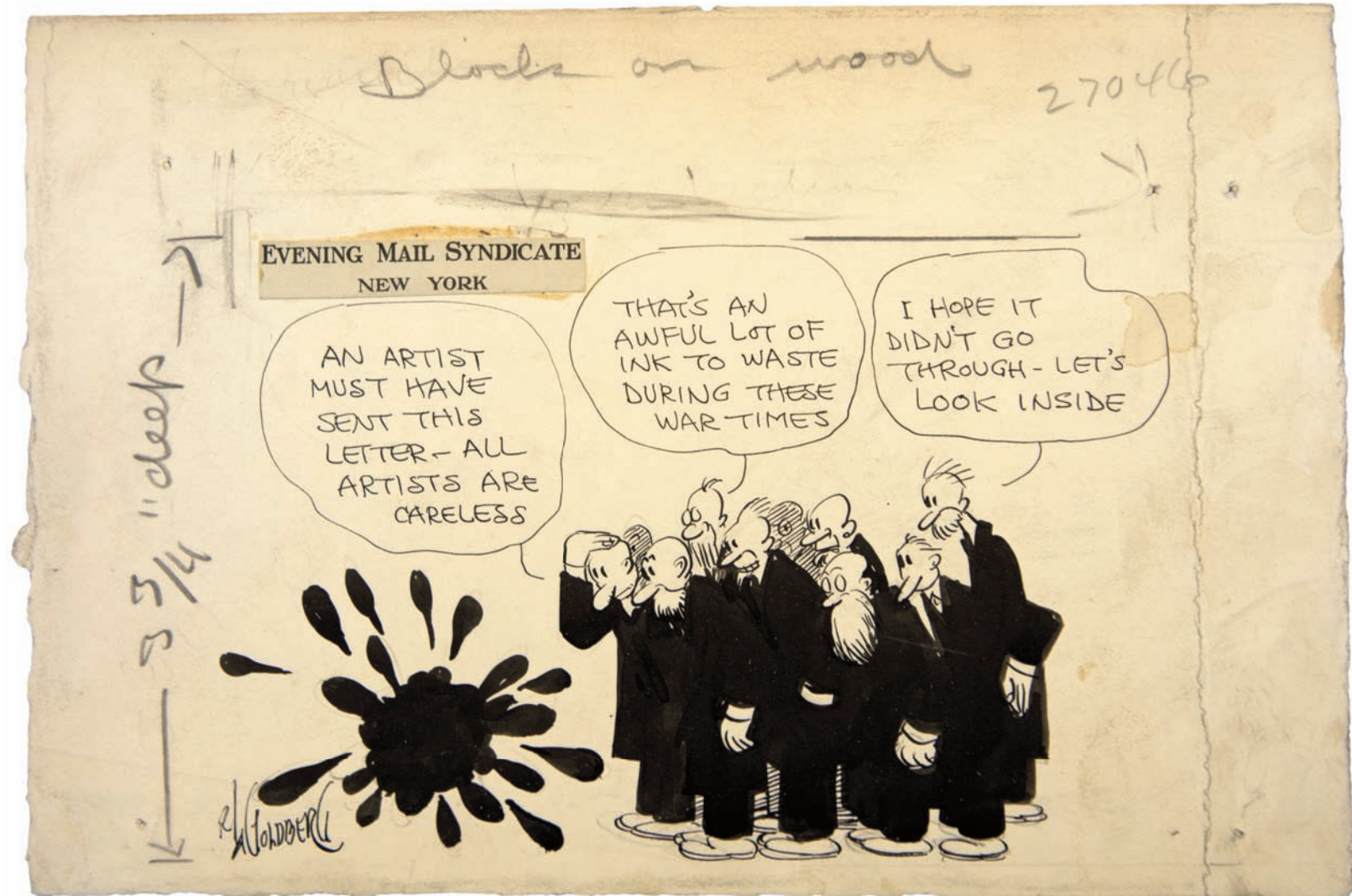
Yet all of this American life, sleepy and burping and scheming, gets *mechanized*. Goldberg’s great subject is the chain reaction—the way that the most disparate parts and bits of modern life can be strung together to accomplish something no one part alone does, or implies. This taste for process is part of the early modern condition, and part of his satiric point is to mock not just the intricacy of machines but the larger idea of efficiency. As Siegfried

▲ “Christmas Greetings from All Our Little Boobs” (December 25, 1923).

Giedion detailed in his 1948 classic history “Mechanization Takes Command,” the idea of the machine—the idea of breaking down every action in our productive lives into its smaller component parts; the idea that there was no process, including mental ones, that could not be treated as though it were made of distinct gears and sprockets, edged and interlocking—was, in the first half of the twentieth century, in its way just as powerful as machines themselves. (It’s interesting to note how many of Goldberg’s machines are powered by someone’s mind or mental state: the midget’s indignation, the wife’s disbelief.) This business of relentless analysis is itself a mental state as much as a style of machine-making, and it is part of what gave Goldberg’s drawings their resonance.

Of his machines, Goldberg himself said that they showed “man’s capacity for exerting maximum effort to accomplish minimum results.” But this neat formula can stand an amendment: They usually show not so much the *maximal* effort for the *minimal* effect so much as *extraordinary* effort for *ordinary* results. Invariably, the goal and end result of a Rube Goldberg machine is perfectly practical but one already easily accomplished: We already know how to cool a plate of soup, carve a turkey, pop the cork on a bottle of wine. It is the inventor’s ambition to show that another solution to the problem might be more intensely mechanized than the existing one—and to show that the new proposed solution would be better *because* it is more intensely mechanized. It is the rococo necessities of the achievements that make them inspired: These are things that need doing, but they don’t need *this much* doing.

Mechanization, for the inhabitants of Goldberg’s world, for Boob McNutt and Professor Butts and his colleagues, is a delirious state of mind: They can’t see a task without imagining a machine that might do it. The overlap between Goldberg’s invention drawings from the early part of the twentieth century and Charlie Chaplin’s later assembly-line factory-worker scene in *Modern Times* (1936), much commented on (and suggested by his



granddaughter to be direct and knowing), lies in this shared comic engagement with the mystery of mechanization: The inevitable result of our enslavement to machinery is to become a kind of machine ourselves, and the sure consequence of a soul-deep love of machinery is to imagine everything as mechanical. (And so Chaplin becomes a machine as he works with one, and Goldberg’s professors can’t go to the post office without imagining a machine to go there with them.)

Another comparison crowds the mind of any cartoon-savvy student of Rube Goldberg, and it’s an illuminating

one. It is one of the fearful symmetries of modern cartooning that, in England, the artist Heath Robinson (1872–1944) created, in almost exactly the same period as Goldberg, a reputation for the same kind of thing—so much so that “a Heath Robinson machine” has precisely the same significance in England as “a Rube Goldberg machine” does in America. The similarities are obvious: Both loved intricately worked up and alarmingly elaborate mechanisms. Yet the differences are obvious, too. Robinson’s world comes out of children’s-book drawings and fin de siècle illustration. They’re full of fantasy and whimsy and coziness;



his tree houses and fountains still belong in the world of Mary Poppins and Peter Pan. Rube Goldberg, by contrast, is thoroughly a cartoonist, in the American, point-scoring style, with the harder, tabloid, American edge of drawing. His firm black-and-white contours delineate a world that lies between the patent office and the editorial page: They have an air of authority, of really mattering, where Robinson belongs in the lovely, loose-limbed world of Kate Greenaway and the *art nouveau*. Robinson's machines are eccentric; Goldberg's are practical—you can build them, as in the game of Mouse Trap—and, because they are practical and

buildable, they are, in another way, sinister. They appear too close to actual machines to be dismissed as mere whimsy. It is in that overlap, the edge of intense realization in Goldberg's work—the very “realized” quality that allows the annual Rube Goldberg machine competitions to extend into the present day—that, once again, Goldberg's cartoons touch the edge of modern art.

I can't resist quoting academic Lawrence D. Steefel Jr. on the Duchamp machines, since the quote seems to capture, if in art-historical jargon, an important quality shared by Goldberg's: “By demonically distributing

“One wonders at the indifference with which everyone accepts the miracles of modern civilization. . . . Today every stunning achievement becomes just another happening in the headlong course of ‘advancement’ that leads us to God knows where.”

—RUBE GOLDBERG

complete clues of representational deception and an abstract pattern that is never quite ‘abstract,’ Duchamp makes sure that his refractory productions frustrate their own illusions of integrity by being neither true nor false except to their own rationale of divisive anamorphism and self-reflexive plot.” You could say that again, and say it again about Goldberg's machines, too: Their refractory productions also frustrate their own illusions of integrity. Meaning, simply, that what he draws looks like a machine that does something, but in doing it, it does more than you have to in order to do something, and so it ends up being a study of . . . itself. Goldberg's machines, like Duchamp's, seem to be useful but really exist for their own sweet and slightly surreal sake.

If Goldberg's great subject was the chain reaction, then his great discovery was that the chain reaction is often more interesting than its end product. This kind of machine, and this idea of mechanization, already passing when Pontus Hultén did his show in the late 1960s, is now almost entirely defunct. It belongs to the truly vanished world of manufacturing, of the assembly line and the hyper-efficient labor-saving device. The computer, the ultimate modern machine, is, in most respects, its opposite. Where the mechanical marvel, which Goldberg parodies, is a complex thing designed to



THE NEW YORK SUN, July 22, 1947.

PEACE TODAY



◀ “Peace Today” (July 22, 1947). Rube won the Pulitzer Prize in 1948 for this now-iconic editorial cartoon.

do a single task, the computer is a mystifyingly simple thing—just a machine for dividing ones and zeroes—that can do *any* task. The classic machine was designed, with almost absurd complexity, to do one thing well. The computer is designed, with inexplicable inner complexity, to do everything at once. So perhaps it’s inevitable that there is no Rube Goldberg of the modern computer age. Computer humor, represented by the wonderful cartoonist Randall Munroe in his webcomic *XKCD*, for instance, is meta humor, made of virtual stick figures pondering the imponderable. Whereas the machines of Goldberg demonstrated the improbable lucidity of the machine even at its craziest, Munroe’s jokes reflect the inscrutability of the computer at its most ordinary; no one knows entirely what goes *on* in there.

Yet, though the power of the mechanistic dream has, perhaps, diminished, the power of the machine really has not. Of all the chain reactions that Rube Goldberg imagined and mocked, the most potent of all, achieved in 1940 in a Chicago university basement, still oversees our daily life. It is perhaps no accident that Rube Goldberg’s most famous, Pulitzer Prize–winning editorial cartoon (during his many years practicing that discipline) showed the ultimate modern mechanical marvel: a simple house perched above a cliff on the seesaw of an atomic bomb, precariously balancing between the earth of world control and the abyss of world destruction. Atomic bombs, nuclear weapons, are the ultimate Rube Goldberg machine, passionately, intricately wrought to do nothing except destroy themselves and everything around them in a last burst of mechanical mockery. Rube Goldberg was an artist who followed the logic of the machine to its comic climax; he also, as artists will, had glimpses of all the other, worse things that a chain reaction might bring about.

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