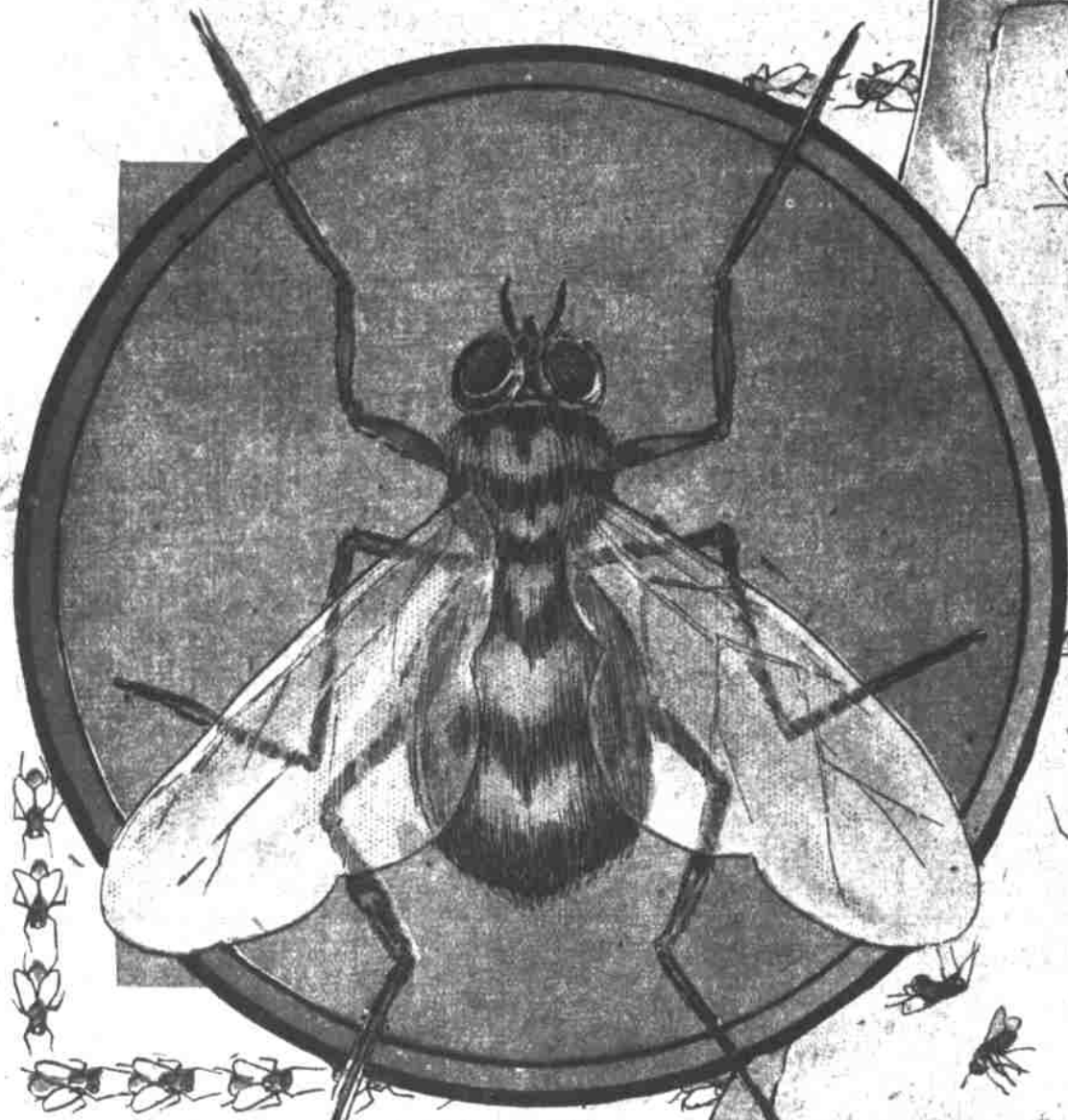


PORTLAND, OREGON, SUNDAY MORNING, JUNE 6, 1909

THE CASE of HUMANITY vs. the FLY



The House Fly as the Eye of the Microscope sees him.

This Summer's Battle with the Pest to Be the Fiercest Ever Fought

IF, THROUGHOUT long years, there had lived in your household a family of servants that bred under your shelter and fed upon your food, and if you, after your parents and your parents' parents had taught you that those servants protected you and yours from secret, invisible foes, had discovered that the whole tribe of them were in reality the allies of your enemies and lived by constantly poisoning you and those you hold best and dearest, what would you do?

That is precisely the case of you and yours against *Musca domestica*, the common house fly.

All over the United States today, at the beginning of this summer, there are thousands of men and women who, having studied the overwhelming evidence against the insect traitors, have taken up the weapons amply provided by human science and knowledge to engage the house fly in deadly encounter. But all over the United States there are millions who must decide now, at this hour, whether they are to enlist for the war or sit, luxuriously idle, looking on from the amphitheater.

The refined, elegant, poisonous, lazy old Romans did that, while barbarian gladiators, with net and deadly trident, sought to slay each other in the bloody arena, and the time came when the barbarians slaughtered the elegant and refined Romans.

In the war that begins in earnest now every human being who is not the mortal and implacable enemy of the common house fly is his active and energetic ally, and so the mortal and implacable foe of humanity. In this new war, with so many thousands already enlisted for the fray, the question is, for the millions still outside of the arena, Humanity's friends or humanity's foes—which?

OH, THIS is the most saffron of yellow journalism, with all its feverish blotches—deadly encounters, secret foes, traitors, bloody arenas! The thing is so hyperbolic that it is funny.

Is it? Then, for the sake of that humanity which has already been too long suffering in the matter of hyperbole and the saffron hue of its literature, let us meet on the chill plane of logic and agree:

That any proposition which is literally true

can be neither hyperbole, exaggeration, sensationalism nor funny; and, also,

When the proposition involves human deaths on the scale of massacres it is not only grim, but tragic; and, third,

The burden of proof lies upon the proponents.

Those proponents—who happen to be the national government at Washington, the boards of health and leading sanitarians of the United States and such advanced members of the laity as the powerful Merchants' Association of New York city—have gone all through the mass of evidence against the common house fly.

They have adjudged him guilty of the deaths of human thousands, from the time the Mayflower pilgrims landed on the continent; and now they have pledged themselves to "a hand-to-hand struggle that shall not cease until the house fly is exterminated."

There is not one among those active champions of the cause of humanity against the fly

who is so dead to humor as to fail to see the comic side of big words as applied to a campaign against so insignificant and, apparently, so helpless an insect. Dean Swift had poorer material for satire when he cast away Gulliver among the Lilliputians.

But mere numbers suffice to make a radical change in any odds of conflict; the scale can at last become so vast that only huge phrases can be proportionate.

WHOLE NATION AFFECTED

The human family, in the United States, breeds from two to four of its kind per pair in the course of a lifetime; and the generations require twenty years to achieve a maturity, practically productive.

It has taken more than 200 years for the race here, aided by constant accessions from the rest of the world, to attain to 80,000,000.

Any one of those 80,000,000 can crush a house fly, if he can catch him, as readily as

John L. Sullivan could have crushed Charley Mitchell if he could have caught him.

The annihilating process would be simple if *Musca domestica* were no more reproductive than humanity, or if humanity had nothing else to do than slay *Musca domestica*. But the spectacle of 80,000,000 people chasing flies would be only a degree more grotesque than was that famous spectacle of Sullivan chasing Mitchell.

With those two alternatives eliminated the problem of the house fly, once its pernicious activities were demonstrated, became one as great as that of the yellow-fever mosquito of Cuba and Panama. Farce, in the first ray of intelligent investigation, glimpsed wholesale tragedy, as tragedy had already been glimpsed in the pellucid pools of wayside brooks which a whole countryside poisons with typhoid.

This common fly, only one of whose species, by a single, fatal footprint, can kill a man, lays 120 eggs, which hatch within eight hours. The larva period lasts five days and the pupa

period five days—in all, 10 days for the new generation to leap into full, active life.

Males and females are about evenly divided. In a single summer, in the latitude of Washington, D. C.—not a bad average for the country at large—one pair of flies will produce twelve generations.

The total number of their descendants is then 14,067,792,000,000,000 flies.

Admit that the whole 80,000,000 of us devote the whole summer to the killing of the whole family of a single pair of flies, and every man, woman and child in the United States must kill 175,847,400 of the pests to wipe out that one fly family.

Now multiply the descendants of that one pair of flies by the original first families of the summer, in number so trivial, in comparison with their actual horde, as merely one million—which does not represent the first fly families of a single second-class city—and we have a total of 14,067,792,000,000,000,000 flies that we are called upon to exterminate, or 175,847,400,000,000 to be slain within three months by every impossible fly-chaser among us, including the new-born babes.

Divided up, it means that the hand that smites the fly would have to move at the rate of 22,614,120 times per second, and never miss a fly.

Remembering always that, even allowing for the destruction in their ranks wrought by natural causes—bird, reptile and insect foes and their own short span of life—the calculation is still limited not by the figures adduced, but by the amount of food on which the flies can batten; and it is pertinent to observe that every fly possesses 12,000 foot hairs.

INFINITY AWES IMAGINATION

These hairs exude a slimy fluid peculiarly adapted to the accumulation of bacteria. Upon those foot hairs dwelling-house flies have been found to average 880,000 poisonous germs per insect, or—to be mildly precise about it—12,379,656,660,000,000,000,000,000 germs are carried to menace the nation within the few summer months.

Again we confront absurdity, but of a very different kind, for it is the absurdity of infinity, before which the imagination shrinks in awe; and the smile, whenever we can muster it, is decidedly sickly in its accompaniment of the question:

"It's funny they don't kill us."

The answer is: They do.

Thus far, and necessarily, for the sake of the main figures required to bludgeon a derision born of the days when we believed the fly was a germ destroyer, the many and illuminating side lights upon his Borgia career have been shut off, lest they confuse the main, important fact that, by dint of sheer numbers, the house fly, unchecked, can overwhelm humanity. But now those other facts become of leading value.

That old, simple, childlike faith in the perfect balance of nature, as it applied to flies, was to the effect that, whenever there were disease germs prevalent in unusual number, flies appeared in a corresponding measure, collected the germs on their bodies as they flew through the air, ate and destroyed them. It was a popular science of the brand that fails in certain vital particulars.

True, flies do collect bacteria, although not quite in the capacity of aerial precipitants; rather, far rather, as terrestrial scavengers, stable flies carrying 420,000 germs each and swill-barrel flies an average of 6,000,000 germs.

(CONTINUED ON INSIDE PAGE)