

# Golf Digest

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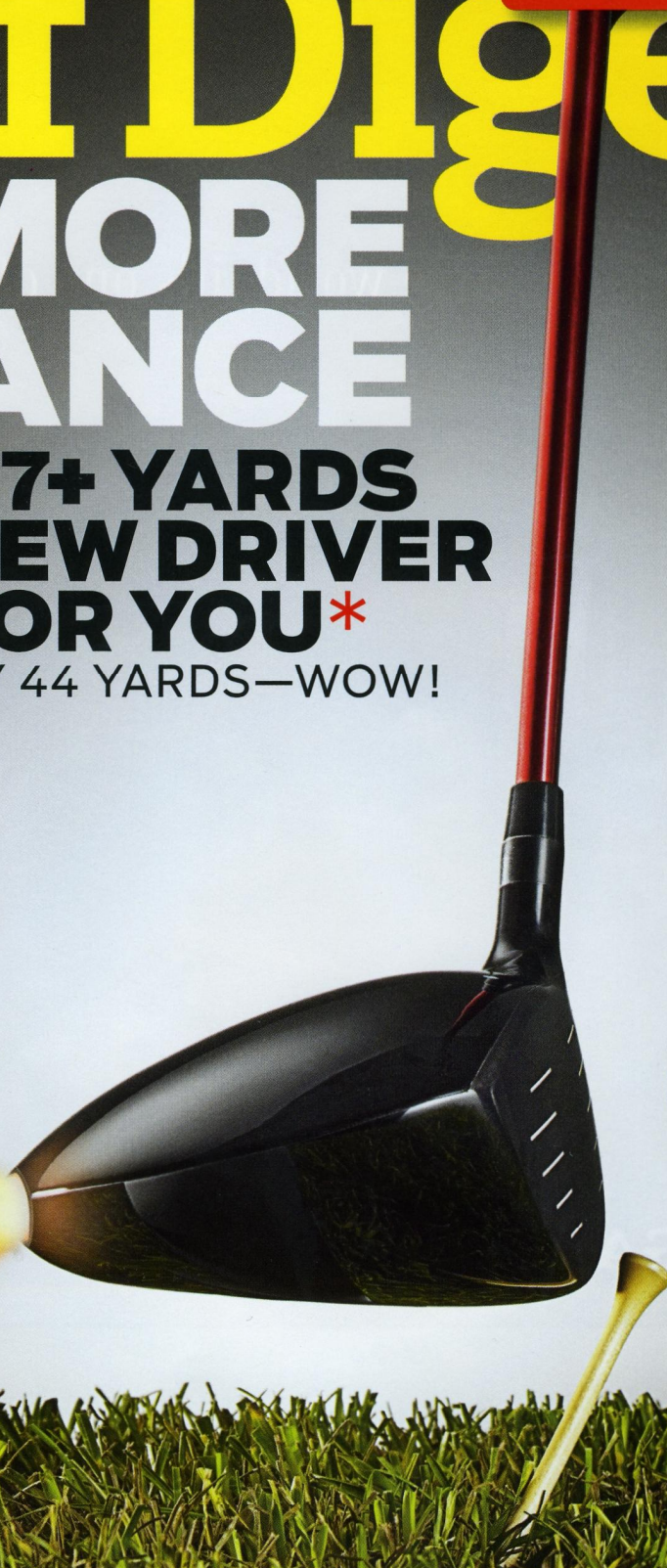
## GET MORE DISTANCE

### PICK UP 17+ YARDS WITH A NEW DRIVER FITTED FOR YOU\*

\*IT GAVE OUR GUY 44 YARDS—WOW!

+

### 4 STEPS TO BETTER PUTTING



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Steve Rushin went for a clubfitting and gained 44 yards with his new driver.



# THE HERO FIT

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CONTRIBUTING EDITOR Steve Rushin is having a pretty good summer. In the June issue, he wrote a piece advocating a golf match between President Obama and Speaker of the House John Boehner. Before the magazine left the newsstands, the White House had set up the game for U.S. Open Saturday, and by the time you get this, it will have been played. (Senior Editor Pete Finch suggested the stakes of the match should have been "office supplies"—wouldn't that be fun, to play Obama for notecard stationery, yours versus the presidential seal? I could really wreak havoc in Ponte Vedra with White House letterhead.)

Rushin's second stroke of good luck came when I called him about an assignment for this issue.

"How old's your driver?" I asked.

"About five years," he said.

"Were you fitted for it?"

"No, but I waggled it in the store before buying."

"How far do you think you hit it?"

"When I catch it, 250."

"Would you rather shoot the lowest score or be the longest hitter in your foursome?"

"Lowest score. But I would enjoy being the longest driver, especially if I was playing with my three brothers, who are long drivers with longer memories. I often end up with the least-flattering combination: Shortest drive, highest score, baldest head. Not good."

"Perfect," I told him. "You're average in every respect. Have I got a cover story for you!"

Our senior editor of equipment, Mike Stachura, was looking for an average golfer to demonstrate the modern phenomenon of clubfitting

## MY TOP 5 THINGS TO PLAY FOR...

...if I had a match with the president of the United States (and he was the athletic but shaky 17-handicap we think he is):

1. **Use of Air Force One** on my next buddies trip.
2. **Ambassadorship** to Scotland or Ireland.
3. **Free drop** on next year's federal income taxes.
4. **Presidential pardon** for rules infraction to be named later.
5. **Change name** of Presidents Cup to Tarde Cup.

plus technology yielding significantly more distance off the tee. When longer, lighter and better-balanced drivers are matched to a golfer's swing under the scrutiny of today's launch monitors, magic can happen. (See "Power Surge," page 64, and "We've Created a Monster," page 72.)

The first revelation occurred when Stachura took Exhibit A to Joe & Leigh's Discount Golf Pro Shop near Boston—one of our 100 Best Clubfitters—and found that Rushin's drives were actually going 194 yards, not 250. How many of us might be guilty of that self-delusion?

What followed was a rare event known as The Hero Fit. Physics and engineering do not fully explain it.

Stachura's machine-testing shows that you should pick up 17.7 yards on on-center hits with a 2011 driver versus a similar club that's four to six years old. On off-center hits, the distance advantage measures 14.7 yards.

Rushin didn't pick up 14.7 yards or 17.7 yards. By the end of the clubfitting session with a new driver tweaked to his specifications of impact, he was driving it 44 yards longer! "Stop!" said clubfitter Daren MacKinnon. "This is off the

charts. Nobody's going to believe it."

So how is this possible? Can there be a miraculous increase in clubhead speed when a club just looks and feels right?

Explains Stachura: "I've talked to fitters who say if the circumstances are right they can even see 60 yards of improvement in a fitting. It really can be a powerful synchronicity between getting rid of the wrong, ill-fitting driver, finding the perfect match and then embracing it. What's amazing and what people don't realize is that with today's best fitters and today's best technology, that whole extreme makeover can take place in minutes, not weeks. And the change can be dramatic. You can't swing the driver fast if you're afraid of it, but if you truly know it's the perfect driver for you, the potential for improvement goes way beyond science."

So the summer is only half over, and Steve Rushin has a new set of fitted clubs, picked up 44 more yards, and taken credit for a presidential summit.

*Jerry Tarde*  
**JERRY TARDE**  
Chairman and Editor-in-Chief



# WE'VE CREATED A MONSTER

## BY STEVE RUSHIN

EVERYTHING man can be fitted for, from suit pants to dental crowns to toupees, requires some degree of personal exposure. But few acts feel quite as denuding as being fitted for a new driver, especially when the pro asks you, with clinical detachment, to produce your old driver for inspection.

I knew my King Cobra was decrepit, but I didn't fully appreciate its antiquity until I went for a fitting at Joe & Leigh's Discount Golf Pro Shop in South Easton, Mass., where co-owner Leigh Bader gave me two options: Trade in my old Cobra for a modest sum or—and this was Leigh's preference—encase it in a shadow box and display it in my home as a curio.

My chaperone, Golf Digest equipment expert Mike Stachura, tried to soften the verdict by telling me: "Hale Irwin used your driver to win the 1994 Heritage Classic."

"So you're saying I can win with it?" I asked.

"If you're Hale Irwin," Stachura said, looking away. "And it's 1994."

The news that my driver will be old enough to vote in the next presidential election was sobering, though in fairness it wasn't my *only* driver. Two years ago, after 15 years with the King Cobra, I went to my local Dick's Sporting Goods on a Saturday morning and purchased a TaylorMade r7 460, which I've used perhaps 15 times since. Its head remains as black and burnished as a Steinway grand—except for the white scuff of an idiot mark, which didn't go unnoticed on the range behind Joe & Leigh's 8,000-square-foot retail store.

"Remember the Peter Sellers line?" Bader said, citing "The Pink Panther," in which Inspector Clouseau casually destroys a concert grand with a hammer. I did remember the line: "But that's a priceless Steinway!" protests the piano owner. To which Clouseau replies: "Not anymore."

So I had two drivers—one a noble warhorse put to pasture, one a priceless Steinway now

despoiled. I hit the r7 better than the Cobra, but I tended to pull the ball with both and seldom drove it more than 250 yards in any direction.

Like the vast majority of golfers, I had never been fitted for a driver, even though a fitting typically results in 10 to 15 extra yards off the tee. On the contrary, I picked the r7 out of a barrel at Dick's and swung it in a rubber room for three minutes, as if being fitted for a straitjacket, not a golf club.

There was something apt about that rubber room, because friends thought I was crazy to have used one driver during 15 years of dizzying technological innovation. But I always told myself I didn't deserve new equipment until my game improved, which it obstinately refused to do. This was a 22-handicap's Catch-22: I wasn't getting a new driver because my game stunk, and my game stunk because I wasn't getting a new driver.

And yet even as I prepared to hit the r7 on the range at Joe

& Leigh's, adjacent to their nine-hole Pine Oaks municipal course, I remained skeptical about the fitting. To me, inserting an expensive new driver into my chaotic swing was like building an opulent new house on a floodplain. But that's the whole point, Bader said: "You can build a new house on a floodplain if you use the right materials. You wouldn't use bamboo, or something else that floats away. Bamboo, by the way, is what you have now."

The "oversize" head of the King Cobra looked—when I bought it during President Clinton's first term—like a canned ham spot-welded to a graphite shaft, so large and inviting was its sweet spot. Compared with modern drivers, however, the Cobra's head looks shrunken and malign, like something in a cannibal's pot in a pirate movie.

Even the r7, with its adjustable weights, is seven years old, making it five years old when I bought it—dog years in

# HOW A MILD-MANNERED FATHER OF FOUR GAINED 44 YARDS OFF THE TEE



# > FITTERS: YOU WILL IMPROVE

driver technology. "Have you ever adjusted the weights on this?" my clubfitter, Pine Oaks assistant pro Daren MacKinnon, asked as I began to hit balls beneath his unblinking gaze. I told him I had not.

"Do you know where the wrench is?" Stachura asked, as I hung my head in shame and squeaked, "No."

As I swung away, it quickly became apparent to MacKinnon that getting a driver tailored to me was a reverse on what I had been doing, which was getting a me tailored to my driver. "You've developed swing flaws to compensate for your clubs," is how he put it, with a delicate bedside manner, as I repeatedly popped balls up and pulled them to the left.

Indeed, a kind of co-dependency had developed between my driver and me. The default setting, with the weight concentrated in the heel, "has actually been feeding into your pull and exaggerating it," MacKinnon said.

A special camera was recording each of my swings and sending data to the launch-monitor software on MacKinnon's laptop, which displayed everything from my swing speed to the ball's trajectory.

Most disturbingly, the software was telling MacKinnon precisely how far I was hitting each drive. I thought I drove the ball 250 yards, but the laptop refused to flatter me. Like a nervous dieter stepping on a scale, I squinted apprehensively after one decent drive and saw, to my horror, this number: 194

After impassively watching me hit balls, MacKinnon fetched a bouquet of drivers, six of them in various sizes, brands and colors. He suggested I not bother looking at the manufacturers' logos,

**H**ow can a top fitter beat your off-the-rack driver? We asked America's 100 Best Clubfitters (see [golfdigest.com/go/clubfitters](http://golfdigest.com/go/clubfitters)) what you should know about a fitting.

"We see mid- to high-handicappers getting more improvement from fitted clubs than some low-handicappers, yet the high-handicappers believe just the opposite." —Dennis L. Johnsen, Pine Meadow G.C. (Ill.)

"The average golfer doesn't realize just how high the proper launch angle is."

—Steve Ramsey, LaFortune Park G. Cse. (Okla.)

"An unfitted driver is typically too long, has too thin of a grip and has too low of a loft with a shaft tip that's too soft to control consistently. The proper length and weight lead to more consistent center impacts. The

right loft will optimize carry and roll, and the proper face angle will keep the golfer in the fairway. The right grip size ensures proper grip pressure and a consistent release." —Bill Weltzel, Conquest Custom Golf (Ohio)

"If I hand a guy a driver with 6 degrees of loft and his drive doesn't get above chest high, he'll start lifting up on his next swing. It takes one club, one swing to create a swing flaw. That's how fast it can happen without getting a proper fit."

—Rick Stitzer, Tee to Green Driving Range & Golf Shop (N.C.)

"If a golfer has a driver that has not been fit with high-speed video and 3-D radar, he rolled the dice. The odds of a good match are about the same as rolling double 6s. If he says he was fit four to five years ago, well, the proper technology did

**Steve Rushin's results aren't typical, but real improvement is.**

not even exist yet." —Russ Ryden, Fit 2 Score (Texas)

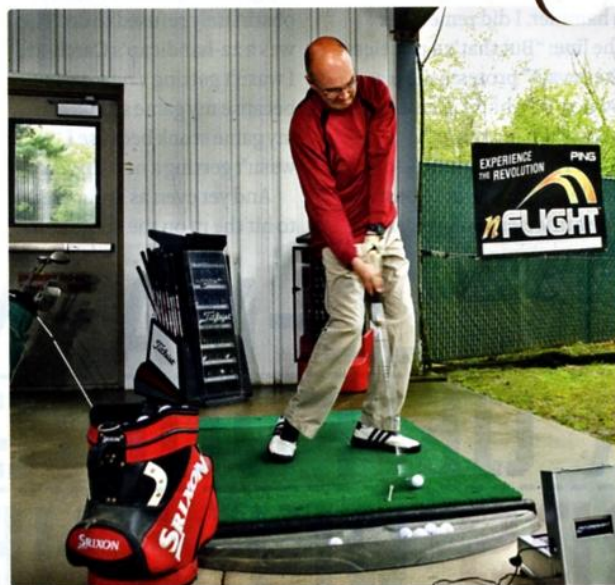
"Think of a golf club like that long pole a tightrope walker holds when he's on a high wire. If it's weighted and balanced just right for him, he can walk that wire as easily as standing on the ground. Everything has to match up with the golfer's size, strength, hand-eye coordination, athleticism and temperament for him to perform at the top of his game. It isn't about the technical improvements of the equipment, it's about getting the equipment just right."

—Roy Nix, McNix Custom Golf (Ga.)

"Players with slow swing speeds usually need more loft, but not always. It's about the launch conditions. Also, testing with range balls is a problem. We get customers who say they were fit at a demo day and can't understand why the driver doesn't work the way they thought it would. Fitting with range balls can never give the correct data for a proper fitting."

—Woody Lashen, Pete's Golf Pro Shop (N.Y.)

"I tell people to imagine that they can only buy shoes that come in whole sizes. Would they find shoes that fit? Sure. Maybe they'd be a little loose or a little snug, but they'd get their feet into something. Now imagine a shoe company starts selling half sizes, too. Suddenly people can buy shoes that fit better. Is it technology? No, it's the result of increased options. That's what's happening with clubheads. Companies are filling in the half sizes." —Matt Grabow, The Golf Doctor (Ga.)





treating my range session as a blind taste test. "Some of this will be Coke versus Pepsi," he said, prying my fingers off the Grape Nehi soda of my vintage Cobra. "Remember, this is supposed to be fun."

## > FINDING THE FITTERS

FOR MY FITTING, I could have gone to see the legendary club whisperer Dana Upshaw at Dana Golf, in a strip mall in Warner Robins, Ga. Or made a pilgrimage to Miles of Golf in Ypsilanti, Mich., where owner Chris Mile maintains a fitting center called the Cluboratory. Red Tail Golf Center in Beaverton, Ore., is a kind of Savile Row of clubfitting, with 15 certified fitters, among them general manager Craig Zimmerman, a CPA who earned his law degree before leaving it all for the humanitarian work of matching clubs to golfers.

Instead I went to Joe & Leigh's, the renowned matchmakers who last year happily wed Jim Furyk to a used putter that the 2003 U.S. Open winner had fallen for in their Swap Shop. With that putter, Furyk promptly won \$1.35 million at the Tour Championship, plus the \$10 million winner's bonus for the FedEx Cup. The price tag on that putter was \$59.95, but Pine Oaks assistant pro Mark Petrucci told Furyk that

he could have it for 39 bucks. "Don't worry," Petrucci said when Furyk began to protest. "We do this for all the Ryder Cup guys."

All of which is to say I was in good hands as I placed my gloved left hand on a hand-sizer, as if preparing to take some kind of golf oath. My hand is one-eighth of an inch oversize, rendering the stock grip of my driver too small. "The small grip is allowing you to get real wristy and helps to create that hook," MacKinnon said. "We'll give you a bigger grip and slow the hands down."

Bader spotted another problem with my hands. "Somebody buy him a new glove," he said, examining mine, which had browned like taco meat over the years, cooking in the hatchback window of my car.

I was self-conscious enough swinging in front of the launch monitor, a trait—the only trait—I share with touring pros. Few golfers are comfortable being rigged up to what is, in essence, a polygraph machine. That's what these systems are: Lie detectors for your swing.

It is sophisticated and expensive equipment. Taylor-Made's MAT-T system, for instance, is even more advanced than the CGI software used in "The Lord of the Rings" trilogy.

PLEASE TURN TO PAGE 128

# POWER TOOLS

## 15 NEW DRIVERS THAT WILL GIVE YOUR GAME A CHARGE

AS YOU NAVIGATE your way through your local shop's driver section, you'll quickly realize that the buzzwords today are "adjustability," "longer and lighter" and "aerodynamics." All are nifty engineering tricks designed to increase your power without a single bicep curl, but an even better trick is combining several of these in the same club. That's because adjustable features add weight, long and light shafts can be hard to control, aerodynamic shapes aren't the most forgiving, and large faces increase drag. The solution? Compromise.

"There's definitely going to be some trade-off between forgiveness and aerodynamics," says Brad Schweigert, Ping's director of engineering. As an example he cites the company's new G20 driver, which has a larger head profile than the G15 but a more aerodynamically engineered shape. "We put the emphasis on forgiveness, but we try to optimize aerodynamics within that."

That balancing act is the strategy for the new Adams Speedline 9088 UL. The lighter shaft is only part of the solution, says Scott Burnett, director of advance product development. "We did a lot of testing and found that a higher balance point allows us to create a 290-gram driver that people don't have to work so hard to release."

The clubmakers might take varying approaches to increasing your distance, but they agree on one thing: The future of the power game lies in forgiveness. "Because of the aerodynamic issues, we still haven't designed really high-inertia drivers effectively," Burnett says. "Once we do that, we can make clubs that work well with even longer shafts." —STINA STERNBERG

## DO THOSE FUNNY TEES MAKE A DIFFERENCE?



There are a handful of new tees designed to reduce ball-tee friction and offer consistent height, including Epoch, 4 Yards More, Zero Friction and TwistTee. But is a nontraditional tee better? Martin Brouillette, a professor of mechanical engineering at the

University of Sherbrooke in Quebec and a member of Golf Digest's Technical Panel, has studied this issue. Brouillette's testing suggests that the loss of ball speed because of the tee could be as much as 0.5 percent—or about the lip on a normal fairway bunker.

John Axe, a retired physicist who also serves on our panel, sees it more practically. He says that the new tees are more durable than wood and that "there might be some advantage in a tee that sits a reproducible height off the ground." —ASHLEY MAYO



CONTINUED FROM PAGE 76

The TrackMan ball-flight-analysis system uses the same technology as military software used to track weapons.

MacKinnon spoke the language of an Army artillery captain. The first thing he wanted to do, after watching me on the range, was to lower my "launch angle," which was averaging 19.2 degrees. "The loft on your current driver is too high at 10.5 degrees," he said. "Also, your particular type of stiff shaft is not quite stiff enough. You're generating so much torque as a tall guy [6-feet-5], and that's generating a hook. And the third thing is the movable weights: They're set up for a draw bias."

Over the next 45 minutes, I swung a series of Goldilocks clubs—some Too Light, some Too Heavy—while looking for Just Right. During that time, and without ever knowing what I was hitting, MacKinnon and I narrowed the field to two drivers, a Callaway RAZR Hawk and a TaylorMade R11, code-named in my mind Coke and Pepsi. I was hitting both of them much longer and straighter than my old driver. "At this point," MacKinnon said, "a big factor is: I just like this one or that one."

The truth is, I liked them both. MacKinnon began to refine the R11 further. He adjusted the red plate on the bottom of the head from Neutral to Open. "This fights off the heel weight," he explained. "It allows you to lower your hands a little, flatten the lie angle—to use a phrase we usually apply to irons—and reduce your hook."

A series of small miracles followed, with MacKinnon reading out the results like a doctor delivering good news: "You just got 230 yards of carry on that last one. Of carry."

Like the r7, my R11 was stiff-

## NEEDLESS TO SAY, I BOUGHT THE DRIVER BEFORE MAKING MY GOODBYES. IN THE PARKING LOT, IT TOOK A PHYSICAL EFFORT TO REFRAIN FROM KISSING MACKINNON.

shafted, but it's a different kind of stiff shaft, a Fujikura Blur better suited to my swing. Why? MacKinnon told me not to worry my pretty little head. "We could write a book on it," he said.

The loft on the R11 was only 9 degrees, down from 10.5 on the old driver. Where the shaft connects to the head, there's a little collar he set to Lower from the factory setting of Standard, hoping to bring my launch angle down even further. And it worked. I was hitting balls longer now, with a lower trajectory and more roll. My launch angle went down 5 degrees on average to 14.4, my spin rate reduced from 4,200 revolutions per minute to 3,100 RPM, and my descent angle from 44 degrees to 32. The line simulating my ball flight on MacKinnon's computer was like the opposite of an EKG: As the line flattened out, we grew happier.

After 45 minutes of ball-striking, I was hitting them—to my everlasting delight—longer and straighter, from an average of 10 yards off line and 22 yards of hook spin with the old driver to just four yards off line with two yards of what we now called, with a straight face, a fade. My club-head speed increased eight miles an hour, from 86 to 94, in part because I was swinging with the confidence of a man holding the right club. "Some of this is the archer and not the arrow," MacKinnon said.

He and I did wonder if anyone would believe these figures. "Your two mis-hits with the R11," he informed me,

"were longer than your best two drives with the r7."

I tried the R11 3-wood. From his monitor, MacKinnon said: "You're hitting the 3-wood farther than your old driver."

On average, I was hitting the R11 driver 35 yards longer than the r7. My two best drives with the R11 were 44 and 43 yards longer than my two longest drives with the old driver.

These results are not typical. But in a single hour on the range, without a single adjustment to my swing, I went from consistently driving the ball in the low 200s to consistently driving the ball in the mid-200s. "I've been trying to find 44 yards for myself," MacKinnon said. "No luck so far."

Needless to say, I bought the driver before making my goodbyes. In the parking lot, it took a physical effort to refrain from kissing MacKinnon. Now all I had to do was hit the R11 for real, in an actual round. And so I called my father-in-law and suggested that he notify his local track of our impending arrival. Surely they'd want to get busy Rushin'-proofing the course.

### ► THE FIELD TEST

ON THE FIRST TEE of my first round with the R11, without benefit of a practice swing, I struck the ball square, and it flew straight. But my feet were comically misaligned, and the ball carried 200 yards into the lawless border region between fairway and range, where my newly flattened descent angle allowed it to roll magnificently and disappear among a thousand range balls.

My second drive carried 210 yards, where it hit the back lip of a fairway bunker. Again, it was solidly struck and went more or less where my feet were inadvertently aiming. After six drives, I had my stance straightened out and a tight little Venn diagram on the clubface—circular impressions of the ball at or just off center, with one outlier toward the toe. "You're making great contact," my father-in-law said, sounding at once impressed and depressed, the best reaction I could have hoped for. "You're crushing your drives."

On the seventh hole, I drove 257 yards to the center of the fairway, where I paused to consider what MacKinnon said about accuracy. "The ego wants to hit it 40 yards farther and feel that manhood, that *Grrrrr!*" he said. "But the reality is, if I help you get 10 more yards and keep you out of the trees, that's much more of a home run for me than the guy who hits it long but sprays it."

Like a doctor studying the chart of some miracle patient whose progress he couldn't quite fathom, MacKinnon then said: "You had the best of both worlds."

Best of all, the head of the R11 is a dazzling white, like an anchorman's teeth. It won't show off an idiot mark like the Steinway head of my r7. At my fitting, as I drove another ball reasonably long and respectably straight, MacKinnon said, "That white head looks great on TV."

And for a moment I thought: *Yes it will.* ♣