

Journal
of AMERICAN
ORGANBUILDING

VOLUME 32 NUMBER 2

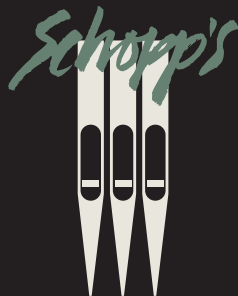
MAY 2017

QUARTERLY PUBLICATION OF THE AMERICAN INSTITUTE OF ORGANBUILDERS

A.R. Schopp's Sons, Inc.



*Proud to be in partnership
with our clients*

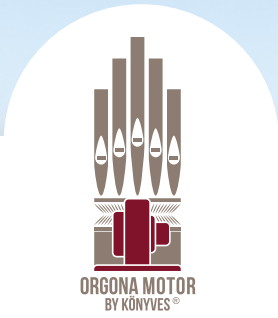


A.R. Schopp's Sons, Inc.

14536 Oyster Road • Alliance, OH 44601

(330) 821-8406 • (800) 371-8406 • Fax (330) 821-5080 • www.arschopp.com

Advance Pro is pleased to announce that it is the exclusive distributor for Könyves & Son Organ Blower Motors.



Könyves motors represent the gold standard in organ blower motors.



Ultra-Silent Blower Motors



High performance motor output



120/240v single & three phase operation



Simplified wiring for easy installation



3 year replacement warranty

For additional information and to request a price quote, please contact:



Peter Bernatsky

Phone: (204) 786-0450
Toll Free: 1-800-392-1295
Email: psb@advance.mb.ca

IOTI

Big or Small: Virtuoso Is The Choice For All



Private Residence,
Kegg Pipe Organ Builders



Christ Cathedral, Garden Grove, CA, Fratelli Ruffatti Organ Builders

From the smallest rural church to Christ Cathedral, there is a Virtuoso Pipe Organ Control System to fit your project and budget.

- » 21st century technology
- » Most robust feature compliment
- » Sustainable, flexible architecture
- » Extreme support
- » Industry-leading warranty
- » Organist-friendly interface

Email info@IntegratedOrganTech.com for our free information package!

IOTI

Pipe Organ Technology

IntegratedOrganTech.com.com | 877 462 4684



Journal of AMERICAN ORGANBUILDING

AMERICAN INSTITUTE OF ORGANBUILDERS

President

Phillip K. Parkey '18
770-368-3216
philparkey@parkeyorgans.com

Vice President

Michael Lauffer '18
614-279-2211
michaellauffer@peeblesherzog.com

Secretary

Joseph O'Donnell '17
503-238-3987
setwork1@msn.com

Treasurer

Charles Eames
217-352-1955
crebuzco@aol.com

Board Members

Stephen Spake '17
704-280-3538
sspake1@gmail.com

Richard B. Parsons '17
585-229-5888
ric@parsonsorgans.com

Cameron Couch '19
330-877-8800
cameronsofa@icloud.com

William E. Catanesye, III '19
781-858-5087
william@williamcatanesye.com

Matthew J. Parsons '19
585-229-5888
mjp@parsonsorgans.com

*Executive Secretary,
Journal Advertising
Manager*

Robert Sullivan
Post Office Box 35306
Canton, OH 44735
330-806-9011
robert_sullivan@pipeorgan.org

The American Institute of Organ-builders is a professional association for individuals engaged in pipe organbuilding or organ maintenance. The Institute's purpose is "to advance the science and practice of pipe organbuilding by discussion, inquiry, research, experiment and other means, and to disseminate knowledge [through] lectures, publications and exchanges of information." Membership and annual convention information may be requested from the Executive Secretary at the address given above or found on the Institute's website, www.pipeorgan.org.

Journal of American Organbuilding (ISSN 1048-2482) is published four times annually by the American Institute of Organbuilders, Post Office Box 35306, Canton, OH 44735.

Convention Coordinator

David Beck
419-290-9014
davebeck@sbcglobal.net

FORTHCOMING CONVENTIONS

Fort Collins, Colorado
October 1-4, 2017
Canton, Ohio
September 30-October 3, 2018

Editor

Jonathan Ambrosino
61 Florence Avenue
Arlington, MA 02476
jonathanambrosino@gmail.com

Design & Production

Len Levasseur
tneorg@aol.com

Journal Committee

Scot L. Huntington, Chair
slhorgans@aol.com
401-348-8298

Fredrick W. Bahr
bahрман@aol.com
330-323-6436

Richard S. Houghten
RichardHou@aol.com
734-439-8866

John Panning
johnpanning@aol.com
712-464-8065

Christoph Wahl
christoph.bannach@hotmail.com
920-731-2170

Printing and Mailing

Johnson Press of America

Subscriptions: Non-member subscription price is \$24 per year or \$65 for three years. Foreign address subscriptions: \$30 per year (U.S. money orders only). Back issues are available for \$7 per copy. Subscription or back-issue checks (payable to AIO) should be mailed to the AIO address at left.

Article submissions: We are pleased to accept manuscripts for review. Contact the Editor or a Journal committee member to discuss length and content. Short items dealing with construction or service techniques, product information, or general points of interest may be submitted for possible publication. Written commentary regarding any aspect of this publication is encouraged, and should be directed to the Editor.

Views expressed are those of the writers and do not necessarily reflect those of the Institute. Acceptance of advertising does not imply AIO endorsement of goods or services offered.

CONTENTS

| | |
|--|--|
| From the President | 7 |
| | <i>Phillip K. Parkey</i> |
| Education | 9 |
| | <i>Bradley Jones</i> |
| Examinations | 10 |
| | <i>Joseph G. Zamberlan</i> |
| AIO 2017 Fort Collins Convention | 12 |
| | <i>Jim Steinborn</i> |
| Shop Tips | 22 |
| | <i>Solder Weights on Reed Tongues</i> <i>Christoph Wahl</i> |
| AIO Meeting Minutes | 23 |

NEW MEMBERS

HAVING DULY MET THE QUALIFICATIONS for membership in the American Institute of Organbuilders and having received no correspondence regarding the nominations as published in the *Journal of American Organbuilding* over the last year, the Board of Directors has approved the following:

REGULAR MEMBERSHIP

Thomas Becker *Lancaster, Pennsylvania*

REGULAR MEMBERSHIP (UPGRADED)

Aaron Tellers *Haverhill, Massachusetts*

AFFILIATE MEMBERSHIP

Steven Adams *Clifton Park, New York*

ON THE COVER



Robert L. Meunier (left) and Fred H. Meunier installing CCCC of the 32ft Open Diapason at Saint John's Cathedral, Denver, March 1938

PHOTO COURTESY OF THE MEUNIER/MOREL AND ASSOCIATES ARCHIVES



Killinger | Pfeifen Freiberg



Basson 16'

Flue pipes and reeds Roland Killinger GmbH Einsteinstrasse 6 71691 Freiberg a. N., Germany

Telephone 0049 (0)7141-785 90 10 Telefax 0049 (0)7141-785 90 19

info@killingerpfeifen.com www.killingerpfeifen.com

FROM THE PRESIDENT

Phillip K. Parkey



GREETINGS from the pollinated South! Spring arrived early this year, and our preparation for Easter has been busy. I hope and trust each of you is busy as well.

The POE Tech committee is finalizing details for the upcoming event in July. There is still time for students to apply. Several of you have taken the opportunity to cultivate students, and we greatly appreciate that. It is so important that we identify and encourage these potential newcomers to the organ industry of tomorrow. POE Tech dates are July 9-14, and the event will be held at our shop, Parkey Organ Builders in Atlanta. Even burned bridges will have no impact on our event!

Jim Steinborn and the Convention Committee are working on our next national convention in Fort Collins, Colorado. The convention dates are October 1-4, 2017. It promises to be a great collection of instruments and lectures, along with outstanding scenery. For those who cannot make the convention, remember our usual midyear workshops for smaller groups, covering topics of benefit to every organbuilder. Brad Jones and the Education Committee are actively working on these opportunities, and they welcome your input on items for future workshops. In addition, Brad is always looking for seminar ideas and shops to host our events. If you might be willing to host, please let Brad know.

Jonathan Ambrosino and the *Journal* committee have been diligently working on a series of upcoming articles for the *Journal*. Part of that work will be information pertaining to the Examinations Committee. Examinations and

Education will be working together to help unravel the mysteries of this option. I hope you take the time to read the articles and ask questions, and I strongly encourage you to seek out time to take the exams.

A brief note about our AIO website. About a year and a half ago, the website received a major overhaul. The rollout has offered a number of features we did not have on the previous site. While the site offers a tremendous amount of information, the registration side of membership has experienced several hiccups. Bobby Sullivan has been following up with emails and invoices where necessary. We respect the time and interest of all of the membership and do not wish to let website issues stand in the way of renewals. Bobby and I have been working on the issues with the designers and have pinpointed a number changes we are working to implement. Several of you have offered insight and suggestions, and your comments have been taken into consideration. Please know the site will be an ongoing project and will grow. Thank you to those who use it. If you have not explored the site, take a few moments to see what is offered. Most of the *Journal* archives are on the site as well as many of the lecture videos for past workshops and conventions. More changes are going to happen in the future.

'Til next time, may your organs remain rodent-free!

Phil Parkey

sound INSPIRATION

Riedel enhances the worship experience by inspiring the dynamic expression of speech and sound. By blending art, science and skill, we help enrich the fullness, presence and clarity of speech and music, as well as silence unwanted noise.

Scott Riedel & Associates, Ltd.
819 North Cass Street Milwaukee, WI 53202-3908
P: (414) 771-8966
F: (414) 771-0138
E: consult@riedelassociates.com
www.riedelassociates.com

RIEDEL
hear the difference.

-Acoustical Design & Testing -Organ Consultation & Inspection -Organ Maintenance & Tuning
-Sound & Video System Design -Sound & Video System Evaluation & Training

CLAYTON
ACOUSTICS GROUP

Bringing both music and speech to life in a worship space is an exciting challenge, and our passion!

2 Wykagyl Road Carmel, NY 10512
845-225-7515 mail@claytonacoustics.com
www.claytonacoustics.com

ACOUSTICS AND SOUND SYSTEM CONSULTING FOR HOUSES OF WORSHIP

SERVING YOUR NEEDS. BUILDING YOUR VISION.

*Your Partner,
not your
competitor,
today & into
the future.*

*From components to
complete instruments,
providing unparalleled
service & products to
the pipe organ industry.*



TOTAL PIPE ORGAN RESOURCES™

2320 West 50th Street
Erie, PA 16506 | 800.374.3674
www.osipipeorgan.com

EDUCATION

Bradley Jones



WITH THEIR DIVERSE BACKGROUNDS, AIO members approach their craft based on their own experiences as well as information gleaned from colleagues. The combination of these two factors is what I would like to explore.

"Back in the day," the larger companies were the major players, and many of our colleagues had trained as a worker, field representative or installer in connection with one of these national builders. Such experience gave those local folks access to specialized support from these companies; you could pick up the phone and talk to someone from the original manufacturer. Today, that option seems greatly reduced.

Many printed resources no longer readily exist. The Organ Literature Foundation had pages of titles of organ-related books and resources. Various other small or university presses reproduced treatises and academic studies on historic instruments, as well as collections of papers and speeches given by noted builders and performers. It was noted in the "35 and under" dinner I attended (as incoming Education chair) that those interested in pursuing some of the exam reading could not gain access to most of the books on the list; those titles had been unavailable for years, and many libraries had disposed of their copies. Used bookstores and eBay are now the primary source. The OHS archives is a valuable resource, but there is no substitute for having a copy of the book on your own shelf.

The rise of smaller firms has resulted in a shift in the learning process. Much like the workers in the larger firms were only exposed to the "brand X" style of building, such can also be the case with small builders. The important difference is that skillsets are less highly specialized in the small shop; everyone has to be a generalist, with a broader spectrum of ability and responsibility. For example, while I am the Tonal Director at my firm, at least half my time is spent doing things other than directing tones. I'm sure the majority of organbuilders can relate. While it is admirable to focus on a specific discipline within the business, the opportunity to understand other elements enhances your ability to grasp the bigger picture. As a bonus, more skill makes you more valuable in the job market.

BUSES, BARS AND BANQUETS

AIO conventions can be a member's greatest educational resource. Aside from lectures, the conventions give us all exposure to those with more experience (i.e. those who have already made the mistakes!). Additionally, exhibits from those on the supply side of our industry provide invaluable help and information. Your greatest and most memorable education may come from your neighbor on a bus trip or at the dinner table. In my experience, most AIO members are more than happy to share technical information and personal experience. Besides, there are relatively few proprietary secrets, since information in and of itself is only the starting point. What one does with that information will always vary based on the person using it.

WHO NEEDS EXAMS?

This question came up in the "35 and under" dinner. The short answer is "no one"...assuming you already know everything. There is no magic involved in participating in the reviews or the exam itself. Like many things in life, you can better yourself (and therefore your business) by being informed. You won't be able to charge more or sit at a special place at the closing banquet. But you will be able to expose yourself to knowledge that will make you a better builder or maintenance technician.

I am as guilty as anyone of not taking advantage of this opportunity, and that is why I have encouraged all Education Committee members to attend the review session at the Fort Collins convention this fall.

Your Education Committee is here to provide opportunities to expose members to new and different concepts concerning the pipe organ. Help us help you by suggesting topics for lectures and seminars.

AIO EDUCATION COMMITTEE

Bradley Jones CHAIR

(edcomm@pipeorgan.org)

Fredrick Bahr

John Boody

Michael Lauffer

Stephen Spake

EXAMINATIONS

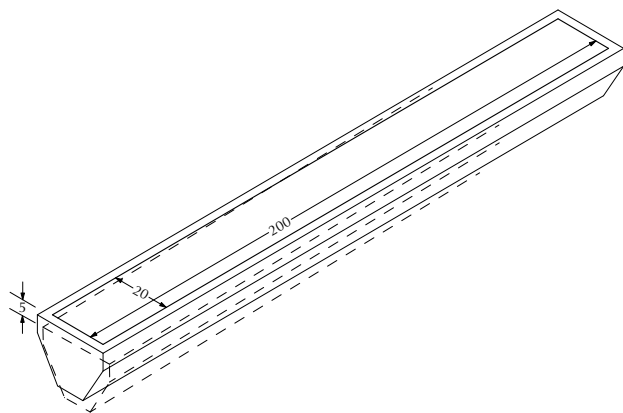
Joseph G. Zamberlan, FAIO



AMONG THE QUESTIONS in the AIO Mechanical Exam are several dealing with the force that organ wind exerts on a slider chest pallet and the resulting pluck. Even if one has little or no opportunity to build slider chests, it is good to be familiar with these concepts, as they apply elsewhere in organbuilding.

In these examples, I will use metric measurements, which are what I learned both in college and my apprenticeship, and which I find much easier to manipulate. We'll make a few assumptions as well — the pallet has "normal" overlap on the slot (3mm, or about $\frac{1}{8}$ "), the pulldown is directly under one end of the slot and the hinge is directly under the other end.

Let's start with a pallet slot 200mm long by 20mm wide (see the accompanying illustration), and a wind pressure of 75mm. The first step is to convert everything to centimeters — this is very important, since working in centimeters and grams (the original definition of one gram was a cubic centimeter of water) allows us to not worry about units while working through the math. So, 20cm long by 2cm wide at a pressure of 7.5cm. We simply multiply these to find the pressure, in grams, the wind exerts on the pallet: $20\text{cm} \times 2\text{cm} \times 7.5\text{cm} = 300\text{g}$. Since our pulldown is at the extreme head of the pallet (twice the distance from the hinge as the center, where we can regard this wind pressure as acting), the pulldown has a mechanical advantage equal to two, and thus the force there is half, or 150g. Remember, this is only the force due to the wind felt at the pulldown.



How much wind will this pallet admit into the channel? When a pallet opens, the opening on each side is a right triangle, while the opening at the head is a rectangle. Let's say in our example that the pallet travel is 5mm, or 0.5cm. Therefore, the opening on each side is $\frac{1}{2} \times 20\text{cm} \times 0.5\text{cm} = 5\text{cm}^2$ (we do this twice, there being two sides, making the total 10cm^2), and at the head is $0.5\text{cm} \times 2\text{cm} = 1\text{cm}$, for a total wind admittance of 11cm^2 .

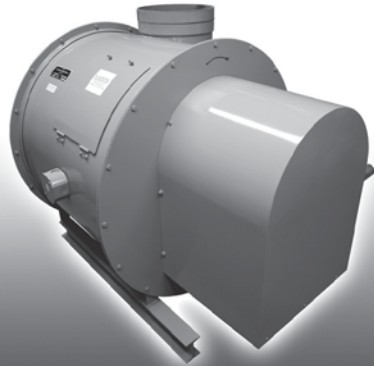
What if we change the pallet's shape? Say we increase the slot width to 3cm, changing no other parameter. The force at the pulldown is now $\frac{1}{2} \times 20\text{cm} \times 3\text{cm} \times 7.5\text{cm} = 225\text{g}$, while the wind admitted to the channel is $2 \times \frac{1}{2} \times 20\text{cm} \times 0.5\text{cm} + 0.5\text{cm} \times 3\text{cm} = 11.5\text{cm}^2$. So we've increased pluck by 50% for less than a 5% increase in wind delivery. If, however, we go the other direction, using a pallet slot 300mm long by 10mm wide, the results are $\frac{1}{2} \times 30\text{cm} \times 30\text{cm} \times 1\text{cm} \times 7.5\text{cm} = 112.5\text{g}$ for pluck, and $2 \times \frac{1}{2} \times 30\text{cm} \times 0.5\text{cm} + 0.5\text{cm} \times 1\text{cm} = 15.5\text{cm}^2$. We've reduced pluck by 25% yet with 40% more wind going through the channel. Thus, wherever possible, long, skinny pallets are preferable to short, wide ones—more wind for the same pluck, or conversely, less pluck for the same amount of wind.

Of course, there are practical limitations to how far one can push these changes. I would probably never use a pallet as long and skinny as this last example. We have, however, used a pallet slot 210mm by 8mm for the first six notes (all flues) in an Antiphonal with electric pulldowns, without difficulty. The actual pallet dimensions were 245mm (including the head extension) by 14mm wide. To minimize any future chance of warping or leakage, we make our pallets from vertical-grain lumber.

An instance where it might actually be preferable to use a "wrong" pallet design would be in a practice organ. We've all played small instruments where just brushing a neighboring key was enough to make it sound. Such windchests are often built at or close to key scale, which imposes restrictions on pallet width and spacing. However, by knowing the wind demand of a given note, plus the available space and wind pressure, a builder can make an informed decision and purposely design a pallet that has more pluck than necessary.



ZEPHYR
ELECTRIC ORGAN
BLOWER COMPANY



Since 1890...
continuing
to bring
unparalleled
support
& customer
service.

PIPE ORGAN PARTS & ELECTRIC BLOWERS

We invite you to contact us for information on our complete line of custom blowers (up to 10 HP), the restoration of Spencer Turbine and Kinetic blowers (up to 25 HP), and remind you to think of us for all of your custom part and pipe-set needs.

PO Box 156, Orrville, Ohio 44667
P: 800.416.7426 • F: 330.683.2274

www.zephyrblower.com

**THESE FAMOUS
SKINNER ORGANS
ARE PROTECTED BY
JL WEILER, INC.
HUMIDIFICATION
SYSTEMS**

- The Music Institute of Chicago
- Coe College, Cedar Rapids, Iowa
- St. Mark's Lutheran Church, Marion, Iowa
- Our Lady, Queen of the Most Holy Rosary Cathedral, Toledo, Ohio

For full particulars, contact Robert Ridgeway, robert@jlweiler.com



Museum-
Quality
Restoration
of Historic
Pipe Organs



JL WEILER, INC.

PIPE ORGAN CURATORS, CONSERVATORS & CONSULTANTS

312-842-7475 | www.jlweiler.com |

**NOMINATIONS
FOR MEMBERSHIP**

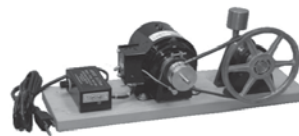
THE FOLLOWING
*meet the qualifications for membership
and have been nominated by members in good standing:*

ASSOCIATE MEMBERSHIP

Angelina Ngo *New York, New York*

CORRESPONDENCE

*regarding the professional qualifications
of nominees should be directed to*
Michael Lauffer, AIO Membership Committee
50 Hayden Avenue, Columbus, Ohio 43222
Michaelauffer@peeblesherzog.com
(please post "AIO membership" in the subject line)



**New—
and improved!**

EZ-Trem Models A & B
Quiet 1/15 & 1/10 hp (UL) motors
(In stock for same day shipment)

Manufactured by:

ARNDT ORGAN SUPPLY CO. L.L.C.
Ankeny, IA 50021-3945
Ph: 877-964-1274 Fax: 515-963-1215
www.arndtorgansupply.com

A Church Organ

should be as substantial as the church itself.
There is not much "wear-out" to JARDINE
ORGANS. Let us mail you our catalogue,
showing a record of 61 years successful work.
GEO. JARDINE & SON, 318-320 E. 39th St., N. Y.



AIO 2017 Fort Collins Convention

by Jim Steinborn

Estes Park and Rocky Mountain National Park

PHOTO GRAY LINE

IN CONTRAST to the past two AIO conventions, which were held in great metropolitan cities on the East and West coasts, AIO's forty-fourth edition in Fort Collins this October will be more middle American. From its 1880s Old Town, to the iconic William N. Bowman-designed High School, Fort Collins is a quintessential small Midwestern city—located against the foothills of the Rocky Mountains. In fact, Fort Collins native Harper Goff used the city's Old Town as inspiration when he helped create Disneyland's Main Street USA.¹

Though deemed unsuitable for cultivation as part of the "Great American Desert," the west and its mountains became home to a thriving fur trade. Legend relates that during a blizzard in the 1820s, trappers in the northern foothills were forced to store their gunpowder along a river to lighten their load, hence its eventual christening as Cache de la Poudre River. In 1862, a company of the 9th Kansas Volunteers established a camp along the river to protect the local division of the Overland Stage

Trail. After a flood in 1864, Camp Collins was relocated to higher ground adjacent to what is present day Old Town Fort Collins. South of the fledgling village, the Colorado Agricultural College was established in 1870 under the Morrill Land Grant Act. Decades later, the college became Colorado State University, and the supply of high-quality graduates attracted corporations such as Waterpik, Woodward Governor, Hewlett-Packard, and Intel. Today, with a population of about 150,000, Fort Collins is Colorado's fourth most populous city.

HOTEL

The newly-renovated Hilton Fort Collins is ideally suited for our convention: comfortable rooms (some with mountain views), new beds, coffeemakers, and complimentary internet access. There's also an indoor pool, whirlpool, modern weight room, and best of all, free parking. From the hotel in Midtown Fort Collins, guests can easily take the MAX Bus Rapid Transit down to Old Town and its many fine restaurants. Pedestrian underpasses connect the

1. <http://history.fcgov.com/archive/legends/disney.php>



The Fort Collins Hilton

PHOTO HILTON HOTELS

Hilton to the Colorado State University main campus and to the University Center for the Arts.

GETTING THERE

Fort Collins is about an hour north of Denver, which is served by Denver International Airport and Amtrak's California Zephyr. The GreenRide² shuttle service offers door-to-door service between Denver Airport and Fort Collins. From Denver Union Station, Amtrak's Thruway Bus No. 8105 is available for westbound California Zephyr passengers. Union Station also connects to the Fort Collins Downtown Transit Center via the newer Bustang³ service. The convention book will have additional information about all transportation options.

TOURS

The Saturday pre-convention tour will take us into the mountains west of Denver, first to the enchanting Georgetown Loop Railroad.⁴ One of Colorado's earliest tourist attractions, the "Far Famed" Loop was completed in 1884 to serve both passengers and the booming silver mines. This 3'-gauge segment of the former Georgetown, Breckenridge, and Leadville Railroad now operates to Silver Plume. Although a mere two miles as the crow flies,

negotiating the 640' elevation difference between the two towns required a circuitous 4.5-mile route, with the line crossing over itself on the spectacular 95'-high Devil's Gate High Bridge.

Following lunch at one of several eateries along picturesque 6th Street, the group will reconvene at Grace Episcopal Church, a Carpenter Gothic church of 1870. There, participants will get to hear the Charles Anderson instrument (1873, 1/7), the oldest organ built in Colorado. The short recital will include at least one hand-pumped selection (perhaps more, depending on how well the audience acclimates to high altitude!). The tour continues at the Georgetown Energy Museum, which since 1900 has housed a beguiling variety of electricity-generating equipment, including an Allis-Chalmers Corliss steam piston engine, a Parsons steam turbine, and three older type water-wheels. Currently, it is home to two Pelton-design water wheels installed in 1906 and 1908, still delivering 1.5 megawatts of electricity utilizing high-pressure water from the Georgetown Reservoir, 670 feet above the plant.

Wednesday's Spouse Tour will travel to the resort village of Estes Park, gateway to Rocky Mountain National Park. After getting our bearings at the Taliesin Architects-designed Beaver Meadows Visitor Center, the bus will traverse Trail Ridge Road through the Park. Rising to 12,183' above sea level, this is the highest paved through road in the United States. In addition to spectacular views, you

2. <http://www.greenrideco.com/>

3. <http://www.ridebustang.com/north-line>

4. <https://www.georgetownlooprr.com/>

will experience the Park's montane, subalpine, and alpine tundra ecosystems. Stops along the way will allow guests to observe the local flora and (hopefully) fauna, with commentary by an on-board naturalist. We'll turn around at the Alpine Visitors Center, giving ample time to get out and explore. Be sure to bring a coat, as the temperature up here is usually about 40°F cooler than in Fort Collins.

Lunch will be back in Estes Park at the historic Stanley Hotel, founded by Freelan O. Stanley of steam automobile fame. Like many other tuberculosis sufferers of his time, Mr. Stanley was advised to take in the dry curative air of the Colorado mountains, and thus for thirty-seven years he spent his summers in Estes Park. Being desirous of less rustic accommodations, he completed this Colonial Revival hotel in 1909, operating it largely as a pastime during the summer months.

The hotel entered pop-culture fame when part-time Boulder resident Stephen King and his wife Tabitha checked into Room 217 in late 1974, only to find themselves the only guests on the last night before the hotel

closed for the season. During his sleep in the otherwise empty hotel, King was startled awake from a dream of his young son being chased by a fire hose. Before dawn, he had the bones of *The Shining* firmly in mind. Although the 1980 Stanley Kubrick film was filmed elsewhere, the Stanley was the inspiration for *The Overlook*.

Following lunch in the Cascades dining room, we will be given a tour of the hotel, including historical and architectural highlights, and even some ghost stories. See the beautiful public rooms, the haunted fourth floor, and other areas not normally open to the public. Outside, you'll be able to explore the grounds, including the new Hedge Maze.

Taking a page from the Boston convention, a second post-convention event awaits our many railfan members on Friday: a private tour of the Union Pacific's Steam Locomotive Shop in Cheyenne. Normally open only a few days per year, this is a rare opportunity for a small-group tour of the shop, including a glimpse into UP's Heritage Operations⁵,
5. <http://www.upsteam.com>



The Depot

PHOTO WIKIMEDIA COMMONS



The Georgetown Loop Railway



Old Town Fort Collins

PHOTO TONY BOYAGIAN

where the No. 4014 "Big Boy," the largest steam locomotive in the world, is currently being restored. Twenty-five of these 4-8-8-4 articulated engines were built to pull heavy freight over the Wasatch mountains. When completed, 4014 will join the never-retired 844 Northern and the 3985 Challenger in UP's fleet of steam locomotives. All three will be present in the shop, along with the triple set of E-9s and other heritage equipment.

We will return to Cheyenne's historic depot to visit the Wyoming Transportation Museum of railroad history. After lunch, the tour continues in Greeley at the Colorado Model Railroad Museum,⁶ one of the finest HO scale model railroads in the world. The 5,500-square foot train layout is housed in a purpose-built building, with more than 600 historical artifacts, including a wooden caboose from the Colorado & Southern Railroad.

LECTURES

Certainly, the centerpiece of any AIO convention is education suffused with collegiality. Education on offer in Fort Collins will include:

- Employees from Morel & Associates in Denver will talk about their restoration of the 1888 Frank Roosevelt No. 382 at First United Methodist Church, Boulder. As with any restoration, they encountered certain challenges that required interesting solutions;
- Examinations Committee chair Joseph Zambellan will present a lecture on ratios in designing mechanical actions, with particular attention to key pivot points, backfalls, and squares;
- Jonathan Ambrosino will offer a history of W.W. Kimball, with special emphasis on their 1938 instrument at Saint John's Cathedral in Denver and its somewhat tortured gestation;
- Local organist and historian Dan Romero will give us a tour through 150 years of Colorado organ history;
- A local business consultant will give a presentation on liability protection and risk management;
- In tackling the subject of augmenting historic organs in sympathetic style, Joseph Rotella of Spencer Organ Company will use his firm's new Antiphonal at Saint John's Cathedral as a primary example;
- Susan Tattershall will discuss taking a community approach to organ restoration: coordinating a diverse group of professional organbuilders, other artisans, and volunteers in a restoration project;

- Bill Landolina will give an update on the 2017 revisions to the pipe organ sections of the National Electrical Code;
- Sebastian Glück will discuss mixtures in acoustically challenging rooms;
- Matt Ferrell of Patrick J. Murphy & Associates will give a lecture on shop project workflow and management;
- Finally, as a follow-up to last year's panel on humidification systems, Andrew Forrest, Ric Parsons, and Jim Steinborn will have a group discussion on micro-climate systems. Andrew has valuable experience in this area, as seen in Létourneau's brilliant solution for the Cathedral of Christ the Light in Oakland; Ric's recent *Journal* article gave a taste of his own firm's work in this direction. And Jim Steinborn will talk about affordable and practical approaches to data logging, essential for getting a handle on tuning in difficult environments.

INSTRUMENTS

The Rocky Mountain Region cannot pretend to have both new and historic installations on par with larger metropolitan areas. Nevertheless, we have arranged to see a great selection of interesting and significant instruments.

Sunday afternoon will feature an opening recital at Colorado State University with professor Dr. Joel Bacon performing on Lawrence Phelps' landmark mechanical-action Casavant (1968, III/34 stops), an early modern tracker teaching instrument. In 2008, the organ was carefully restored by Parsons Pipe Organ Builders, as well as being moved from the Music Building on the CSU main campus to the new University Center for the Arts. The only modifications were new tin Pedal façade pipes, and updates to the stop control and combination systems.

The Tuesday tour will commence in Boulder, where we will see Morel & Associates' restoration of the previously-mentioned Roosevelt (1888, III/34 stops). Originally built for Grace Methodist Church in Denver, this "Style Fifty-Four" instrument with tracker-pneumatic action was relocated to Boulder in 1960 by Fred Meunier. It is one of the most intact and original large Roosevelts anywhere.

Just down the Boulder Turnpike is the Church of the Holy Comforter, where E. & G.G. Hook Op. 476 (1869, II/14 stops) was relocated in 2016 by Steinborn Pipe Organs, assisted by Joseph Rotella and Susan Tattershall. Acquired in 2008 from First Methodist Church, Lawrence, Massachusetts, it was restored for Saint John's Cathedral in Denver by Susan Tattershall and Richard Hamar, with

6. <http://www.cmr.org>



The Visser-Rowland organ in Saint Mary's Cathedral (R.C.), Cheyenne

PHOTO JIM STEINBORN



The new Antiphonal at Saint John's Cathedral, Denver

PHOTO JIM STEINBORN



Hook organ relocated to the Church of the Holy Comforter, Broomfield
 PHOTO JIM STEINBORN

labor and materials from a host of other builders and volunteers. Installed at the back of the nave, it was the Cathedral's temporary organ while the 1938 Kimball was being restored.

In Denver, Patrick J. Murphy and Associates' 2009 Opus 52 (II/29 ranks) supports the vibrant music program at Church of the Ascension (Episcopal). Designer Frank Friemel incorporated *The Ascension*, a 1931 carving by modernist Denver artist Arnold Rönnebeck, as an architectural element of the striking façade. The instrument features Blackinton-type slider windchests and the low-profile console typical of Murphy's shop.

The day's final instrument will be seen and heard at Saint John's Cathedral and its aforementioned 1938 Kimball of 96 ranks. The last large instrument from that venerable Chicago builder, K.P.O. 7231 was restored in 2009-12 by Spencer Organ Company, preserving its originality, save for new electronics. A new (but originally prepared for) Antiphonal division was added in 2016, a collaborative effort of Spencer Organ Company, J. Zamberlan & Co., and Jonathan Ambrosino. Vintage Kimball pipework was augmented by other older ranks and new material from A.R. Schopp's Sons (façade, 32' Bourdon, hooded Tuba). The shallow 27'-high cases were designed to block no part of Edward Frampton's amply-scaled *Last Judgement* window.

The post-convention tour takes us to Cheyenne, Wyoming, where we will see Visser-Rowland Opus 92 (1991, III/38 stops) at Saint Mary's Cathedral (R.C.), which Steinborn Pipe Organs renovated in 2011 for the Cathedral's centenary. Across town, Ascension Lutheran Church is home to Martin Ott's Opus 105 (2005, II/16 stops). This compact instrument has its playing actions and pipes on a single windchest, all under expression save for the Prinzipal.

Quimby Pipe Organs' Opus 67 (2011, III/38 ranks) is at First Congregational Church in Greeley. Seven vintage ranks, including one from the church's oft-reworked 1907 Lyon & Healy, are combined with new material on electro-pneumatic slider chests (the seal-less chests about which Eric Johnson lectured in 2014 at Oklahoma City). Of special note here is a pulpit fashioned from the console shell of the previous organ!

Finally, back in Fort Collins, we will see the 1987 Marcussen & Søn (III/45 stops) at First United Methodist Church. This is the "mama bear" of the three North American Marcussens, and an interesting example of building an instrument for an acoustically difficult room.

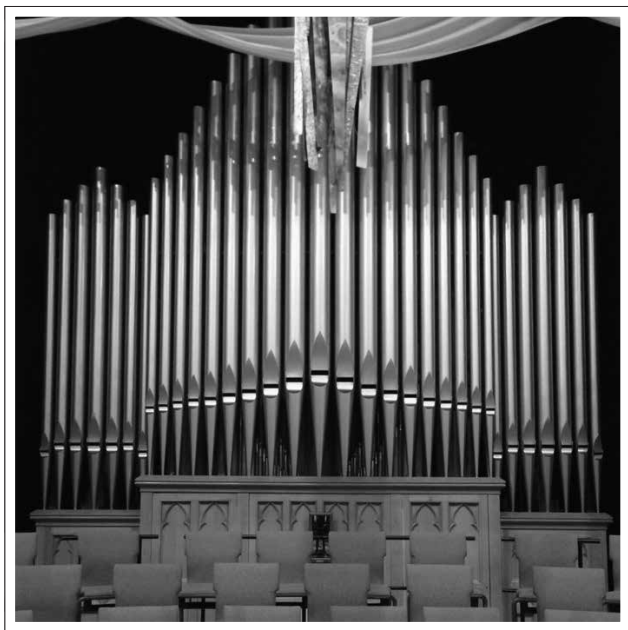


The Quimby organ in First Congregational Church, Greeley
 PHOTO JIM STEINBORN



The Casavant at Colorado State University

PHOTO JIM STEINBORN



The Roosevelt in First United Methodist Church, Boulder
PHOTO MOREL & ASSOCIATES



Patrick J. Murphy & Associates organ at Church of the Ascension, Denver
PHOTO PATRICK J. MURPHY & ASSOCIATES

THE REST

This full schedule will still allow ample time to visit our highly-valued suppliers and exhibitors, those people and firms who make all our work so much easier. Consistent with recent practice, the dining area will be set up in the exhibit hall, and the schedule tailored to encourage easy and repeat visitation of our exhibitors. We should all show how much we appreciate our suppliers' crucial support of the convention, and our industry.

When you need a break, the nearby Spring Creek Trail is great for a relaxing walk. While there, peruse the more than 1,000 flowering plants of the Annual Test Garden in front of the University Center for the Arts.⁷ Consider coming early to see the autumn colors in the upper elevations of

7. <http://www.flowertrials.colostate.edu/>

Boulder County, Poudre Canyon, and up into North Park as far as Steamboat Springs. These great conifer forests, dappled with golden aspen trees, can be quite spectacular. Fort Collins also has a fantastic selection of craft breweries to tour and sample. Immediately following the convention is the First Friday Gallery Walk,⁸ as well as a concert in Old Town Square. A bit farther afield, you can visit the Benson Sculpture Garden in Loveland to the south.⁹

It will be great seeing you in Fort Collins. With your colleagues and suppliers, the lectures, and the organs, there is something for everyone to see and learn. Come early and enjoy the Rocky Mountains and everything else Colorado has to offer. We will have a grand *and* educational time

8. <http://www.visitftcollins.com/fort-collins-event/first-friday-gallery-walk/2017-10-06/>

9. <http://www.sculptureinthepark.org/garden>



AMERICAN INSTITUTE OF ORGANBUILDERS

SCIENCE / ART / MUSIC / INTEGRITY

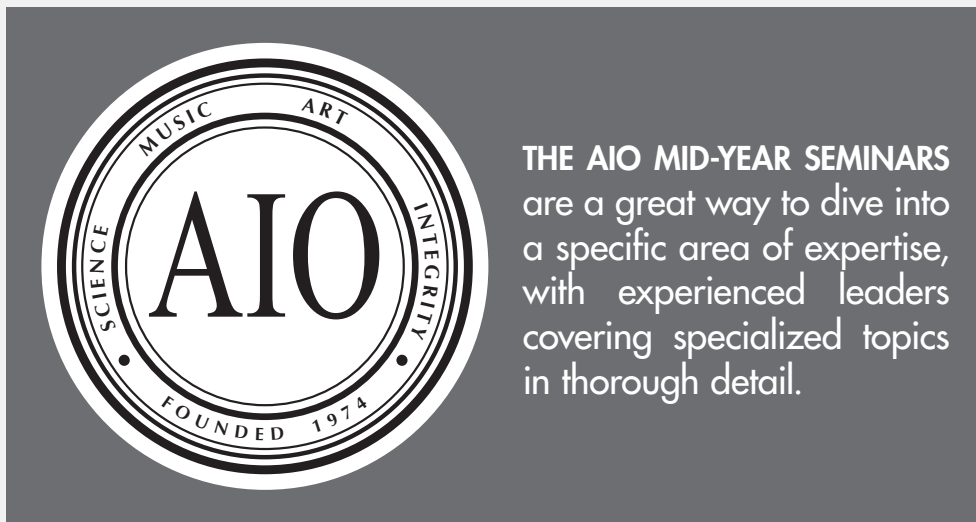
Search ...

Membership Info **Member Directory** **Member Portfolio** **Events** **AIO Journal** **Resources**

04:11

AMERICAN INSTITUTE OF ORGANBUILDERS

VISIT THE AMERICAN INSTITUTE OF ORGANBUILDERS ONLINE
WWW.PIPEORGAN.ORG



THE AIO MID-YEAR SEMINARS are a great way to dive into a specific area of expertise, with experienced leaders covering specialized topics in thorough detail.

TRACKER ORGANBUILDING AUGUST 18–19, 2017

A look into the design and building of tracker-action organs at Taylor & Boody Organbuilders

INCLUDING:

- historic cases
- case design
- sawmilling and drying of wood
- wind chests
- wind system design and materials
- key action design and materials
- historic pipe scales
- pipe making, voicing
- organ tours and music-making
- fun, fire and fellowship at Boody Farm

STAUNTON is a beautiful town located in the foothills of western Virginia. The Taylor & Boody crew is renowned not only for genteel southern hospitality but a strong desire to share knowledge and experience.

STONEWALL JACKSON HOTEL

A block of rooms has been reserved at this beautifully-renovated vintage hotel in the heart of town (complete with Wurlitzer lobby organ):

Thursday: \$119/night + tax

Friday/Saturday: \$169/night + tax

540-885-4848

Other hotels are available; Taylor & Boody is able to offer some free housing.

REGISTRATION DEADLINE

July 18, 2017

Registration: \$200 for AIO members, including all materials, two lunches and two dinners.

Seminar limited to **fifteen** participants.

The group will tour and study Taylor & Boody Opera 24, 34 and 46, all in Staunton.

Questions about any seminar or convention? Contact the Executive Secretary at robert.sullivan@pipeorgan.org

AIO ~ Mid-Year Seminars

WEIGHTING OF REED TONGUES usually takes one of two forms: the fastened or adhered weight. Fastened weights have mechanical assurance to recommend them, but the work to bore the tongue and find a proper fastener and weight is non-trivial and rather rigid in decision. Adhesive options are more common, from the classic Chatterton's to Martha Stewart's favored glue gun. But these adhesives can be finicky and treacherous, especially when solvents and mechanical forces disturb the bond. What follows is an easy solution for moderate loading of reed tongues with something common to all organ pipes: lead-based solder. The technology is simple, available to us all, and is mechanically sound over time.

Our workshop developed this simple technique while restoring a late-19th century Cornopean with some aftermarket solder blobs applied to the tongues of the bass notes. The loading as we received it was necessary, but it was rather crude. In lieu of this freeform approach, we used two pieces of masking tape and a standard soldering iron to form a new weight on the tongue.

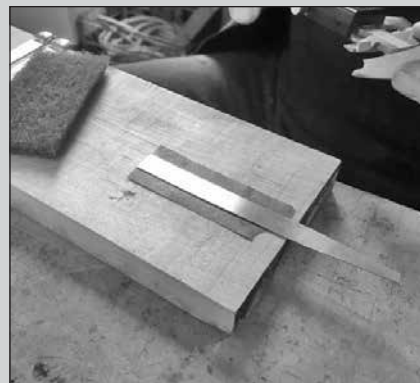
First, apply masking tape to the back (or inside) of the tongue, pressing it firmly to the brass. Cut the tape flush to the end of the bright and cleaned tongue, but allow it to overhang the sides. (The trimmed end allows easier manipulation on a stone or other hard surface while soldering.) Place a secondary perpendicular piece on the front (or outside) of the tongue, revealing the extent you wish to load. Secure the tape and charge the exposed portion of the tongue with candle.

Loading the tongue is, at minimum, a two-step process. A first tinning of the exposed area assures a good bond. Second and all subsequent approaches will determine the amount of loading. One essential tip here: after applying the solder, withdraw the iron vertically to leave a "pillow" of metal by capillary action. Any sideways movement will result in an unsightly tail to be trimmed.

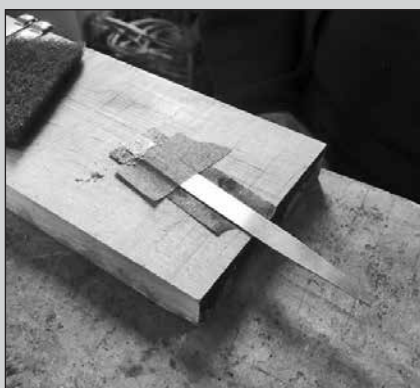
Once the desired loading is set, remove the masking and clean the tongue of any tape adhesive or candle residue.



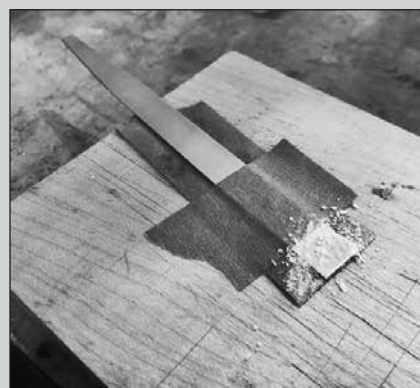
1



2



3



4



5



6

Do you have a shop tip to share with the profession? Consider submitting some of your tricks or secrets to the Journal to help the industry become more efficient. Great will be your reward in heaven. Please send such to: christoph.bannach@hotmail.com, and we will be happy to share your wisdom with the assembled. Pictures always help.

AIO Meeting Minutes

BOARD OF DIRECTORS MEETING

A meeting of the Board of Directors was held by videoconference on Friday, 24 February 2017.

Present were President Phil Parkey, Vice President Michael Lauffer, Treasurer Charles Eames, Secretary Joe O'Donnell, Directors-at-Large William Catanesye, Cameron Couch, Matt Parsons, Ric Parsons and Stephen Spake, as well as Executive Secretary Robert Sullivan.

A quorum being present, the meeting was called to order at 11:31 a.m. EDT by President Parkey.

The meeting agenda was adopted, as amended, on a motion by Eames.

The minutes of the board meeting of 4 November 2016 had previously been approved via electronic voting on 1 December 2016 following a motion by Couch.

REPORTS OF EXECUTIVE SECRETARY AND OFFICERS

Treasurer

Year-to-date income is just over \$89,000, including \$20,000 in dues and Boston convention profit (see below). Funds were earlier drawn from investments and put in checking, but not added to the budget at the time. This has been corrected.

Year-to-date expenses are \$58,000 (\$28,000 of these in legal fees).

Checking account balance is \$30,000. With \$86,000 in CDs, net worth is \$116,000.

Executive Secretary

Membership renewals to date: 115 by card, 67 by check. Possible communications methods with members were discussed – an email blast will be sent.

There have been some issues with the website on billing and membership renewals. Parkey will schedule a meeting with Sullivan and Bill Landolina to discuss improvements. Parkey wondered if we can track members who visit the website (not at present). The button on the home page which is supposed to link to renewal has been frustratingly unreliable.

Sullivan is working on a spreadsheet of past convention lectures to aid future convention planners.

Convention Oversight

Per Sullivan, through Dave Beck, Boston convention netted about \$40,000 in profit, making it among the most successful.

Brad Jones, Stephen Spake, Cameron Couch, Dave Beck, Robert Sullivan and Jim Steinborn met in Fort Collins this past weekend. The convention hotel is being extensively remodeled.

Education topics for the future were discussed. Another worthwhile topic would be legal protection issues.

Some lecture topics for Fort Collins have been announced; more to come.

President

The final agreement papers have been signed, releasing Sullivan and AIO from the lawsuit. Parkey has investigated directors' and officers' insurance as a rider on our liability policy. Our current carrier has declined until they know the suit is settled; we have a proposal from another insurer. Parkey will call for an e-vote once all estimates are in hand.

STANDING COMMITTEE REPORTS

Education (Spake)

Two pages of member suggestions for upcoming lectures and seminars have been compiled. Guidelines for all aspects of seminars and conventions are under review.

Participant evaluations may transition to an online form in the future – tallies are much easier to do.

Examinations

Bryan Timm's changes to the structure have been well received. The service exam is under revision at this time.

Ethics

No issues at this time.

Journal

The addition of Christoph Wahl to the *Journal* Committee was approved.

Outreach (Lauffer)

Ideas are being solicited from a number of members. A report will be forthcoming.

Workplace Safety and Environmental Sustainability

No report at this time

Membership (Lauffer)

On 9 January 2017, on the recommendation of the Membership Committee, the Board accepted the following into membership via electronic vote:

Benjamin Schreckengost of Denver, Colorado, Jonathan Rose of Logan, Utah and Michael Kraft, of Salem, Massachusetts as Regular Members; Ryan Bartosiewicz of Rochester, New Hampshire and Kevin Mathieu of Rindge, New Hampshire as Regular Members upgraded from Associate; Peter LeMaria of Providence, Rhode Island and James Kmon, of Coventry, Rhode Island as Associate Members; Joseph Olefirowicz of Nashua, New Hampshire as an Affiliate Member; and Mason Hill of Newport News, Virginia as a Student member.

After discussion, the Board, by majority vote, declined to accept Anthony Meloni's application for membership.

Resolutions (O'Donnell)

Three proposed revisions to the Bylaws were discussed. A vote will be taken at the next Board meeting.

OLD BUSINESS

Seven scholarships are available for the Atlanta POE Tech July 9-14. Board members are encouraged to suggest applicants. Five scholarships are being funded by APOBA.

NEC Liaison Change – discussions are in progress in conjunction with APOBA.

Treasurer Change – a candidate is being sought.

Per Parsons, the video of the recent electrical seminar is presently accessible in the members' section of the AIO website. A way is being sought to make it permanently available.

David Scribner will continue as the convention videographer for the time being.

Next Meeting

12 May 2017, 11:30 a.m. EDT by videoconference.

ADJOURNMENT

The meeting was adjourned at 12:57 p.m. EST, on a motion by Lauffer.

Respectfully submitted,
Joe O'Donnell, Secretary

Approved by electronic vote on 6 March 2017



P&S
ORGAN SUPPLY

ORGAN & ORGAN PART MAKERS TO THE TRADE

**From stopknobs to
completed instruments
and anywhere in-between.**

NORTH AMERICAN SALES:

5600 GENERAL WASHINGTON DRIVE
SUITE B211
ALEXANDRIA
VA 22312
USA

T: 1 800 364 0649
F: 703 933 0025
E: PANDSORG@AOL.COM

WWW.PANDSORGANSUPPLY.COM



www.pipeorgancontrol.com

INTEGRATED RELAY/COMBINATION ACTION CONTROL SYSTEM
ELECTRO-MECHANICAL ACTION
ALUMINUM ORGAN PIPES

MATTERS, INC 13873 HILLVIEW TRAIL HERMOSA, SD 57744
MARK - (MOBILE) 574.209.1520 JUSTIN - (MOBILE) 605.431.3499

Position Available — Cabinetmaker | Organbuilder

David E. Wallace & Co. LLC, pipe organ builders of Gorham, Maine has a position available for the right individual in our growing shop. The ideal candidate must have several years of experience as a top quality cabinet maker or as a fine wood worker at a pipe organ building company. Experience with tuning and maintenance, with pipe organ electrical control systems, wind systems and leathering will be a plus for the top candidate. The successful candidate will be able to work independently and efficiently as well as an integral part of the whole team in maintaining the high standards we set for our products. Occasional travel is a requirement of the position. Our shop is located 12 miles west of Portland, Maine and is within an easy drive of Boston. Compensation is commensurate with experience. Resume and references required. Please make initial inquiries by contacting David Wallace at david.wallace623@gmail.com.

American Institute of Organbuilders

Fort Collins, CO • October 1-4, 2017

Hilton Fort Collins

www.pipeorgan.org

Casavant Frères
E. & G. G. Hook
W. W. Kimball
Patrick J. Murphy
Martin Ott
Quimby Pipe Organs
Frank Roosevelt
Visser-Rowland

Rocky Mountain National Park
The Historic Stanley Hotel
Georgetown Loop RR
Lebanon Silver Mine
Scenic Estes Park
Demonstrations
Table Talks
Lectures



QLF CUSTOM PIPE ORGAN COMPONENTS are offering their “world-famous” pipe racking reamers for sale. All sets are checked, adjusted and ready to use out of the box.

They come with long steel shafts for racking on-site. Shorter shafts and re-sharpening service available. The largest reamer cuts up to 3” in diameter. Great to use on-site or in the shop.

We will send the set out in a sturdy plywood box for \$1,465.00, plus shipping. Please call at (540) 484-1133 or email us at info@qlfcomponents.com.



Your Partners In Success

More Profit. Less Service Calls

Legacy



Maestro



- One board does it all
- Customized parts available
- Backward compatible to day one



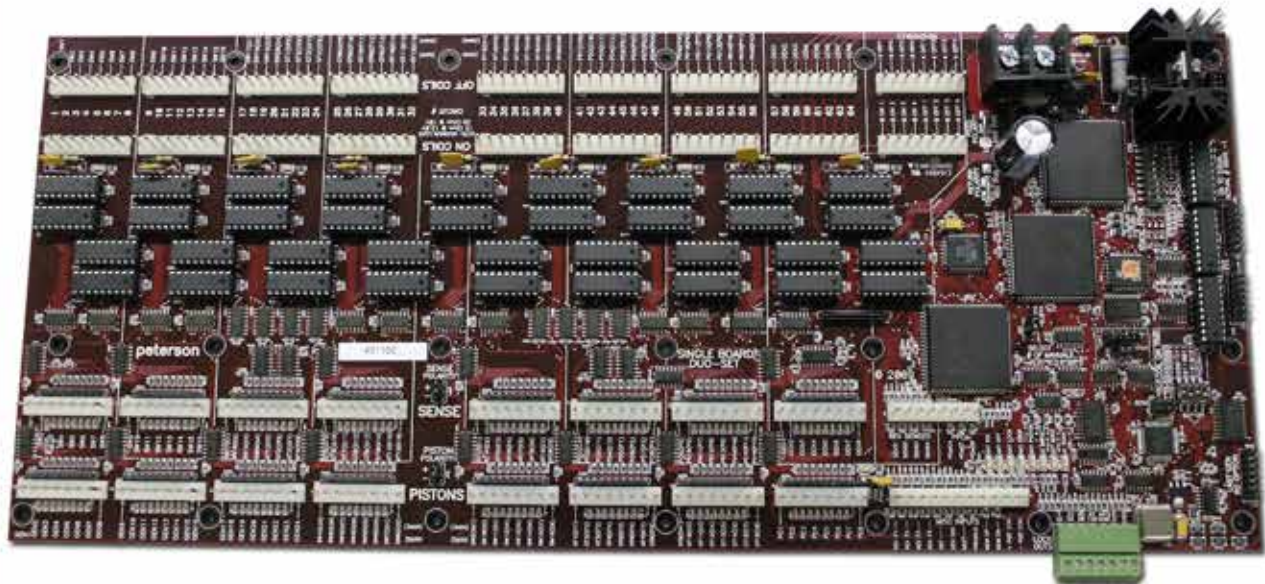
www.organworks.com



- The future of control systems
- Unlimited combo action & MIDI
- Configurable remotely via internet

1-888-812-9717

The Single Board DuoSet™



*Also available fully cabled

Peterson's modular DuoSet™ combination actions have been a staple in pipe organ building since 1972.

The "SBDS" combination action with piston sequencer and pedal piston couplers brings you more features, smaller size, is simpler to install, and is significantly less expensive for most organs. Best of all, it's backed by Peterson's renowned customer service.

Have you tried one yet?



SBDS Control Panel



peterson
ELECTRO-MUSICAL PRODUCTS, INC.

11601 S. Mayfield Avenue - Alsip, Illinois 60803-2476 - USA

Phone 708.388.3311 - Toll Free 800.341.3311 - Fax 708.388.3367 - info@petersonemp.com

www.PetersonEMP.com - www.ICS4000.com - www.PetersonTuners.com

Download brochures and more at www.PetersonEMP.com/brochures

SSOSYSTEMS.COM

FINALLY!

21st Century Controls for Pipe Organs

Tuning for MultiSystem:
Intuitive. Wireless. Remote. Tuning.

Hold all the console's controls in one hand

Part of the Organist Palette wireless
initiative from Solid State



*"Rather than
blind you with science,
we'll just help you build
brilliant
organs."*



SOLID STATE ORGAN SYSTEMS

THE NEW STANDARD FOR PIPE ORGAN CONTROL
